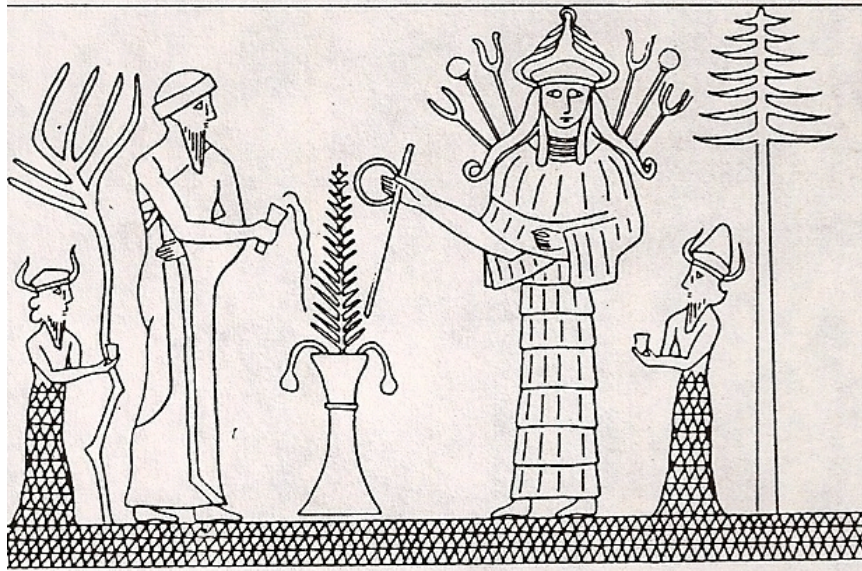


# **On Fossil Gods and Forgotten Worlds**

**by Ev Cochrane**



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## Preface

The Great Gods of yore have long since fallen silent. Yet for countless millennia prior to their eclipse they loomed ominously in the heavens above, their thunderous voices being enough to raise hackles on the bravest warrior. Fossil Gods such as Horus, Thor, and Inanna were awe-inspiring and omnipresent powers, impossible to ignore or forget. That said, such names are familiar today only to a small cadre of scholars specializing in ancient cultures.

It is no longer fashionable to give much credence to the seemingly far-fetched myths and legends attached to the Great Gods. Indeed, the mere concept of “myth” has become so debased that it now passes as a virtual synonym for fiction or fantasy. Yet this development is as recent as it is myopic and misguided. Since the Dawn of Time itself myth provided the primary source of information for how the world came to be as it is—not to mention a divinely ordained instructional manual for how to live an honorable and meaningful life. In this sense ancient man lived in accordance with Thomas Mann’s famous dictum:

“Life, then—at any rate—significant life, was in ancient times the reconstitution of the myth in flesh and blood; it referred to and appealed to the myth; only through it, through reference to the past, could it approve itself as genuine and significant. The myth is the legitimization of life; only through and in it does life find self-awareness, sanction, consecration.”<sup>1</sup>

A proper reading of the historical record will show that ancient man’s entire life revolved around the seemingly obsessive attempt to honor and appease the Great Gods, whether through the construction of mountain-like ziggurats or by offering human sacrifices. Countless rites were designed with the express purpose of emulating or commemorating

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<sup>1</sup> T. Mann, “Freud and the Future,” *Daedalus* 88 (1959), p. 376.

the celebrated deeds of the Gods, their neglect or improper performance being punishable by death.

How are we to explain ancient man's collective obsession with the comings and goings of the Great Gods—much less the *mysterium tremendum et fascinosum*<sup>2</sup> evoked by their tumultuous fulminations from on high? For one reason or another, ancient man seems to have been fixated on observing the Great Gods and chronicling their extraordinary behavior—their peculiar births, uncanny metamorphoses, and innumerable love affairs. Why this should be the case has long been a puzzle and remains enshrouded in mystery to this very day. The answer, or so we have proposed in several monographs on the subject, is that ancient man actually witnessed the trials and tribulations of the Great Gods firsthand—this despite what we think possible nowadays. Indeed, a review of the evidence will reveal that the ancients were the traumatized survivors of truly extraordinary and devastating cataclysms involving various planetary bodies, the latter constituting the Gods themselves. Being at once life-threatening and strangely beautiful, the catastrophic events dominated the celestial landscape and were utterly mesmerizing. Indeed, it is precisely because the planetary cataclysms were so traumatic and fascinating that they were duly recorded—often in striking and painstaking detail. Upon being committed to memory, the events in question were eventually encoded in myth and endlessly celebrated in public celebrations and ritual reenactments. The unfolding celestial drama, properly reconstructed, is nothing less than the history of the Gods.

Like the fossilized bones of great dinosaurs revealed by a retreating riverbed, the testimony regarding fossil Gods provides telltale evidence of lost worlds and world-engulfing catastrophe. In this sense our work of historical reconstruction is not unlike that of a paleontologist, who seeks to deduce and reconstruct the biological record from a mere handful of scattered bones and teeth. Considered in isolation and without regard for historical context, no one bone or tooth can ever be conclusive. Rather, *it is the*

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<sup>2</sup> As per the formulations of Thorkild Jacobsen and Walter Otto. See T. Jacobsen, *The Treasures of Darkness* (New Haven, 1976), p. 3.

*comparison and analysis of detailed structures from around the globe* that offers the most compelling evidence for the seemingly fantastic monsters that once ruled the earth. And the same logic and methodological rationale offers the surest guide for reconstructing the Great Gods who only recently dominated the sky. By revisiting and analyzing the abundant mnemonic structures attested in ancient myth and ritual, *Fossil Gods and Forgotten Worlds* attempts to shed some much needed light on the dramatic celestial events encoded therein—events that literally shook the world while exercising a decisive and formative influence on cultural institutions around the globe.

## 1. The Ladder-to-Heaven

“Who hath ascended up into heaven, and come down?”<sup>3</sup>

Most of us are familiar with the story of Jacob’s ladder, wherein the son of Isaac dreamed he saw a ladder extending to heaven. Isaiah’s account of Jacob’s dream has long formed a crux for students of the Old Testament: “And he dreamed, and behold a ladder set up on the earth, and the top of it reached to heaven: and behold the angels of God ascending and descending on it.”<sup>4</sup>

The passage describing Jacob’s ladder appears as if out of thin air, with little regard for context or a commonsense understanding of the natural world. It is as if the story’s original context had been lost to the redactors of the Old Testament. Whatever the circumstances behind the decision to include the story in its present minimalist form, it is evident that the tradition of Jacob’s ladder was deemed too important to be omitted all together.

That the Biblical account of Jacob’s ladder contains ideas of great antiquity and popularity has long been noted.<sup>5</sup> Indeed, the ladder-to-heaven motif is attested on all inhabited continents (F52 in Thompson’s Index). The present chapter will offer a cross-cultural analysis of the theme in question and discuss its relationship to other familiar mythological motifs. At the conclusion of our survey, an attempt will be made to reconstruct the extraordinary events that inspired the ladder-to-heaven theme, thereby allowing us to better understand its original historical context.

### When the sky was near

A seemingly universal belief holds that in primeval times heaven was located fairly close to earth—so close, in fact, that traffic between the two was commonplace. It was in such

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<sup>3</sup> *Proverbs* 30.

<sup>4</sup> *Genesis* 28:12.

<sup>5</sup> T. Gaster, *Myth, Legend, and Custom in the Old Testament* (New York, 1969), pp. 184-187.

times, according to the testimony of sacred traditions around the world, that a luminous ladder spanned the sky thereby allowing for ready access to the celestial kingdom. Alas, the ladder-to-heaven was not to last and it eventually collapsed whereupon the sky was uplifted to its present height.

The continent of Africa offers a wealth of testimony attesting to a ladder-to-heaven in former times. Witness the following traditions collected by Breutz:

“The concept that the sky is solid and connected to the earth by a ladder, rope or chain, is found mainly in the Niger bend, in Volta, and among the Yoruba in Nigeria.

Hoffman...reports that the Mamabolo (Northern Sotho of Rhodesian origin) say that the sky god Modimo went up to heaven on a ladder, from which he removed the rungs. The same...is said of the Lamba god Leza. The sky-ladder myth is also found among the Rotse in Zambia, where their deity is said to have ascended along the thread of a cobweb...In addition the Tsonga and Zulu have a tradition concerning a ladder or rope leading up to the sky.”<sup>6</sup>

Similar traditions are evident in West Africa, as James Frazer documented at the turn of the previous century:

“In almost all the series of native traditions there, you will find accounts of a time when there was direct intercourse between the gods or spirits that live in the sky, and men. That intercourse is always said to have been cut off by some human error; for example, the Fernando Po people say that once upon a time there was no trouble of serious disturbance upon earth because there was a ladder, made like the one you get palm-nuts with, only ‘long, long’; and this ladder reached from heaven to earth so the gods could go up and down it and attend personally to mundane affairs. But one day a cripple boy started to go up the ladder, and he got a long way up when his mother saw him, and went

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<sup>6</sup> P. Breutz, “Sotho-Tswana Celestial Concepts,” in *Ethnological and Linguistic Studies in Honour of N. J. van Warmelo* (Pretoria, 1969), pp. 199-200.

up in pursuit. The gods, horrified at the prospect of having boys and women invading heaven, threw down the ladder, and have since left humanity severely alone.”<sup>7</sup>

The ladder-to-heaven motif is also well represented in Aboriginal Australia. Thus, the Milingimbi from Arnhem Land tell the story of Inua’s attempt to construct a ladder from fish vertebrae in the aftermath of his sister’s assault by another man:

“Guessing what was wrong and not wishing to be involved in a domestic quarrel, he ran back to camp, joined the discarded fish vertebrae end on end to make a long ladder and climbed to the sky, pulling the ladder up after him so that no one could follow.”<sup>8</sup>

Catasterized into a star or planet, Inua lived happily ever after along the banks of a celestial river.

Chinese lore recalls a time when a ladder spanned heaven, thereby allowing regular trafficking between the two worlds. Yuan Ke summarized the various traditions as follows:

“In those days there was a ladder between heaven and earth. The gods and fairies and witches all came and went easily between the two places.”<sup>9</sup>

That the “gods and fairies and witches” employed the ladder-to-heaven in their ascents and descents recalls the account in Genesis wherein “the angels of God” made a practice of ascending and descending Jacob’s ladder.

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<sup>7</sup> J. Frazer, *Folklore in the Old Testament* (New York, 1988), pp. 228-229.

<sup>8</sup> C. Mountford, *Arnhem Land: Art, Myth and Symbolism* (Melbourne, 1968), p. 492.

<sup>9</sup> Y. Ke, *Dragons and Dynasties* (Singapore, 1991), p. 33.



## The Chain of Arrows

Tales of an ascent to heaven are commonplace in the New World. According to the pioneering anthropologist Franz Boas, “the scaling of heaven is a saga which occurs very often in America.”<sup>10</sup> An oral tradition collected from the Tlingit Indians of British Columbia relates that, once upon a time, the son of a great chief absentmindedly set about shooting arrows upon the sudden disappearance of his friend:

“He thought, ‘Now I am going to shoot that star next to the moon.’ In that spot was a large and very bright one. He shot an arrow at this star and sat down to watch, when, sure enough, the star darkened. Now he began shooting at that star from the big pile of arrows he and his chum had made, and he was encouraged by seeing that the arrows did not come back. After he had shot for some time he saw something hanging down very near him and, when he shot up another arrow, it stuck to this. The next did likewise, and at last a chain of arrows reached him...Now the youth felt badly for the loss of his friend and, lying down under the arrow chain, he went to sleep. After a while he awoke, found himself sleeping on that hill, remembered the arrows he had shot away, and looked up. Instead of the arrows there was a long ladder reaching right down to him.”<sup>11</sup>

Apparent in the Tlingit oral tradition is the so-called chain of arrows motif (F53 in Thompson’s Index). Here a hero shoots a series of arrows skyward in order to form a ladder upon which to ascend to heaven. Raffaele Pettazzoni devoted an entire monograph to this widespread motif, wherein he offered the following summary:

“Another motive is that of the chain of arrows by which one or more personages of the legend climb from earth to heaven, and sometimes descend again. The hero hurls darts; one embeds itself in the celestial vault, then another embeds itself exactly in the notch of

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<sup>10</sup> F. Boas, “Indianische Sagen von der Nordwestküste Amerikas,” *Zeitschrift für Ethnologie* 27 (1895), p. 498.

<sup>11</sup> S. Thompson, *Tales of the North American Indians* (Bloomington, 1966), p. 132.

the first, a third in the second, and so on until they form a long chain of arrows upon which the hero mounts as upon a ladder to heaven.”<sup>12</sup>

In a Kwakiutl tale from British Columbia the ascending hero is the notorious trickster Mink, alleged to have been conceived when his mother became impregnated by the rays of the Sun. It seems that Mink’s playmates made a habit of poking fun at him for his alleged bastard status and, upon being informed by his mother of his father’s identity, the youth resolves to ascend to the house of the Sun. At that point Mink begins shooting arrows at the sky:

“Then Born-to-be-the-Sun shot one of the arrows upward. It is said it struck our sky. Then he shot another one upward. It struck the nock of the one that he had shot upward first; then again another one, and it hit the end of his arrow. His arrows came down sticking together. Then he shot the last one, and it hit the end of the one he had shot before. They came to the ground. Then the mother of Born-to-be-the-Sun took the end of the arrows and shook them, and they became a rope...Then Born-to-be-the-Sun climbed, going upward. He went to visit his father. He arrived, and went through to the upper side of the sky.”<sup>13</sup>

That the ladder-to-heaven leads to the kingdom of the sun-god is a recurring and widespread belief. This datum will prove to be a key piece of evidence in reconstructing the astronomical background of the mythological imagery in question. An interesting example of this motif comes from the Tsimshian Indians from British Columbia:

“The sky is a beautiful open country. It is reached through the hole in the sky, which opens and closes...The sky may also be reached by means of a ladder which extends from the mountains to the sky...After reaching the sky, the visitor finds himself on a trail

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<sup>12</sup> R. Pettazzoni, “The Chain of Arrows: The Diffusion of a Mythical Motive,” *Folklore* 35 (1924), pp. 155-156.

<sup>13</sup> J. Frazer, “Phaethon and the Sun,” in *Apollodorus: The Library Vol. II* (Cambridge, 1963), p. 392.

which leads to the house of the Sun chief. In this house the Sun lives with his daughter...The Sun's daughter is the Evening Star."<sup>14</sup>

On the other side of the globe the chain of arrows motif can be found amongst the Melanesians of the South Sea Islands. Thus, the natives of Leper's Island (New Hebrides) relate how the hero Tagaro once attempted to follow his wife and son who had escaped to the sky-world:

"At last he had an idea. Quickly making a powerful bow and a hundred arrows, he shot one of them at the sky. The arrow struck firmly, and he then shot another into the butt of the first, and a third into the butt of the second, and thus, one after another, he sent his arrows, making an arrow-chain, until, when he had sped the last one, the end of the chain reached the earth. Then from the sky a banian-root crept down the arrow-chain and took root in the earth. Tagaro breathed upon it, and it grew larger and stronger, whereupon, taking all his ornaments, he and the bird climbed the banian-root to the sky."<sup>15</sup>

Traditions of primeval ascents to heaven along ladders or chains of arrows are widespread in South America as well. The idea has been documented among the Mataco,<sup>16</sup> the Chorote,<sup>17</sup> the Nivalké,<sup>18</sup> and the Tupi,<sup>19</sup> among other indigenous tribes. The Nivalké tell of the time when a reed-like ladder descended from the sky:

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<sup>14</sup> F. Boas, "Tsimshian Mythology," *ARBAE* 31 (1916), pp. 453-454.

<sup>15</sup> R. Dixon, "Oceanic Mythology," in L. Gray ed., *The Mythology of All Races* (Boston, 1916), p. 139.

<sup>16</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Mataco Indians* (Los Angeles, 1982), pp. 38, 41, 44.

<sup>17</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Chorote Indians* (Los Angeles, 1985), pp. 225-226.

<sup>18</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Nivalké Indians* (Los Angeles, 1987), pp. 55-56; 424-425.

<sup>19</sup> R. Pettazzoni, *op. cit.*, p. 159, writes as follows of the Amazonian traditions: "Along the river Amazon and among the Tupi, particularly those in the east and on the coast, but also among the western branches (Guarayos), is frequently found in the folklore the motive of the chain of arrows."

“Suddenly, from up there, where the stars come out, a ladder descended. It was made from the same kind of reeds that the Indians used for the shafts of their arrows. Suddenly a ladder made of reeds appeared; it reached from the sky down to the ground.”<sup>20</sup>

The Shipaya also envisaged the ladder-to-heaven as composed of reeds. The anthropologist Métraux collected the following tradition:

“The Shipaya used for the ascension a ladder of taquara reeds. As the people were about to return to the earth, a storm broke the ladder and some Shipaya were forced to remain in the sky...”<sup>21</sup>

According to the Mataco, a towering ladder made a thunderous noise when it fell from heaven. One narrative describes the primeval occasion as follows:

“Something fell from above, making a metallic sound. It was an iron ladder that reached from the sky all the way down to the earth.”<sup>22</sup>

The Chorote of Gran Chaco make a hummingbird named Sen the first to succeed in ascending to heaven. In the early days of the world the bird began shooting arrows one after the other until he had a long chain extending from heaven to earth. Shortly thereafter, a spider came along and spun a web alongside the arrow chain thereby creating a rope-like structure reaching to heaven. It was along this rope that Sen and the other Chorote heroes, as birds, ascended to heaven.<sup>23</sup>

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<sup>20</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Nivaklé Indians* (Los Angeles, 1987), p. 66.

<sup>21</sup> A. Métraux, *Myths of the Toba and Pilaga Indians of the Gran Chaco* (Philadelphia, 1946), p. 26.

<sup>22</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Mataco Indians* (Los Angeles, 1982), p. 76.

<sup>23</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Chorote Indians* (Los Angeles, 1985), pp. 225-226.

In this Chorote tradition, as in the aforementioned Kwakiutl tradition involving Mink, the arrow-chain is intimately related to a rope spanning heaven. This datum will prove important when we attempt to visualize and reconstruct the physical structure of the ladder to heaven. In reality the two mythological structures—the chain of arrows and the rope to heaven—are fundamentally analogous and trace to the same basic celestial phenomenon. Thus it is that the sacred traditions of various cultures speak of “climbing” up a “rope of arrows.”<sup>24</sup>

A fascinating example of the chain of arrows motif was preserved by the Sikuani Indians of the tropical savannas along the Orinoco river (in modern Colombia). They describe how the hero Tsamani employed an arrow-ladder in order to scale the heavenly vault. In one version of this myth, the hero implores his comrades to gather their arrows and follow him upward:

“‘The bow and arrows are the path that we are going to use to get to the sky.’ So each took his bow and his quiver of arrows...and began to shoot at the sky, aiming each arrow at the tail end of the one fired before it so that they would form a ladder to the ground...That way they reached the sky, climbing up inside the arrows in the form of termites.”<sup>25</sup>

According to the Sikuani, Tsamani’s ascent was only possible because of the sky’s former close proximity to the earth. Or so it is reported in the following variant of the aforementioned narrative:

“In those days the firmament was low. The next day they shot an arrow upward, and it stuck in the sky. They shot another arrow into the end of that one, and continued

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<sup>24</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Nivalké Indians* (Los Angeles, 1987), p. 425. See also the traditions preserved by F. Boas, “Tsimshian Mythology,” *op. cit.*, p. 864.

<sup>25</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Sikuani Indians* (Los Angeles, 1992), pp. 89-90.

shooting arrows in this way until they had a chain reaching all the way down to the ground.”<sup>26</sup>

Tsamani’s arrow-chain is elsewhere said to have had “the shape of a ladder, like a vine,” an idea we have already encountered in Melanesian lore.<sup>27</sup> Eventually, after many years and much mischief, the ladder was destroyed.

Yet another variant of this narrative told by the same tribe preserves additional motifs of interest to our study. Upon ascending to heaven along the ladder, Tsamani and the others turned into stars set next to the sun:

“In those days the sky was not as it is now. Mava told them to shoot at one side of the door, the left side, and they did as he said...The older brothers kept shooting at the door, one arrow after another, until the ladder made by the arrows nearly reached the earth, coming as close as a meter from the earth. They asked one another: ‘How are we going to go up that path?’ Pumenerrua [a woman] called her boyfriend and asked him how they would climb up. He told them to turn into termites to ascend. She was the first to do so, and once she had arrived at her boyfriend’s side the path turned into a kind of ladder on which all of them climbed up. They remained in the sky, to one side of the sun.”<sup>28</sup>

The Sikuni report that the ancient sky “was not as it is now” will be corroborated again and again during the course of this study.

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<sup>26</sup> *Ibid.*, p. 102.

<sup>27</sup> *Ibid.*, p. 90.

<sup>28</sup> *Ibid.*, p. 100.

## The World Tree

Sacred narratives everywhere describe a previous World Age in which a colossal tree dominated the celestial landscape, joining heaven to earth.<sup>29</sup> By climbing this tree mythical heroes were able to visit heaven and converse with the gods. A few examples should suffice to illustrate the fundamental affinity between the World Tree and ladder-to-heaven.

The Polynesians colonized a vast area extending from New Zealand to Hawaii. Renowned for their seafaring skills, the Polynesians carried with them a significant corpus of mythological lore involving the various celestial bodies. More than one group believed it was possible to travel to the celestial kingdom using a ladder or tree. The Fiji Islanders, for example, tell the following story:

“The hero of a Fijian legend is a warrior who is the son of Tui-Langi, i.e., of the King of Heaven, or of Heaven itself personified, which at that time was considerably closer to the earth. The warrior climbs up on to a tree, into which his stick had changed itself, and arrives in heaven.”<sup>30</sup>

As this tradition attests, the Fiji Islanders, together with countless other cultures, believed that heaven formerly rested close to earth.

In North America, the Algonquin tell of a hero's ascent to heaven along a giant tree. There it is the dwarf Tchakabech who makes the primeval ascent in order to reach the kingdom of the sun-god: “He decided to ascend to the Sky and climbed upward on a tree, which grew as he breathed upon it, until he reached the heavens, where he found the loveliest country in the world.”<sup>31</sup>

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<sup>29</sup> M. Eliade, *Patterns in Comparative Religion* (New York, 1958), pp. 265-326.

<sup>30</sup> L. Fison, *Tales from Old Fiji* (London, 1894), pp. 49ff.

<sup>31</sup> H. Alexander, “North American,” in L. Gray ed., *The Mythology of All Races, Vol. 10* (Boston, 1917), pp. 48-49.

The idea of a World Tree serving as a ladder-to-heaven is also found in South America. Thus, the Toba Indians of the Gran Chaco tell the following story:

“There used to be a tree called Latee Na Mapik...It reached all the way up into the sky. Men used to climb that tree to reach the first sky.”<sup>32</sup>

The Mataco preserve a very similar tradition. They recall the time when, “at the beginning of the world the Indians, by making use of a very tall tree, often climbed up to the sky to gather honey and fish.”<sup>33</sup> A related narrative from the same tribe reports:

“Formerly sky and earth were connected by a big tree. The men of this earth climbed up it and went to hunt in the world above.”<sup>34</sup>

The creation myth of the Makka Indians tells of a giant tree spanning heaven and earth:

“There was once a very tall *lignum vitae* tree, so tall that it reached the heavens. It had huge roots and many branches. People used to climb it until they reached the highest point of the tree, and then the sky...”<sup>35</sup>

Such paradisiacal conditions were not to last. Amidst cataclysmic circumstances, the towering tree collapsed in a great conflagration:

“When they returned, the people saw their ladder burning. The tree was like a ladder because it was very tall.”<sup>36</sup>

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<sup>32</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Toba Indians*, Vol. 2 (Los Angeles, 1989), p. 69.

<sup>33</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Mataco Indians* (Los Angeles, 1982), p. 45.

<sup>34</sup> *Ibid.*, p. 46.

<sup>35</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Makka Indians* (Los Angeles, 1991), p. 193.

<sup>36</sup> *Ibid.*



That the Makka themselves likened the World Tree to a “ladder” extending to heaven suggests that they recognized a fundamental affinity between the two celestial forms.

Various tribes in South America believed that the souls of the dead were wont to climb along a giant tree uniting heaven and Earth. This idea is apparent in the following Mocovi narrative:

“The Mocovi imagined a tree, which they called Nalliagdigua, so tall that it reached from the earth to the sky. Climbing up from branch to branch, the souls went fishing in a river.”<sup>37</sup>

Analogous ideas are apparent among the Guarani and Carib Indians:

“In the north of South America it is believed that the souls of the dead ascend ‘the tree of heaven’ in a garden, at the top of which they would meet their creator, called Tamoi among the Guarani, or Tamu among the Carib.”<sup>38</sup>

The idea that souls were accustomed to climbing the World Tree in order to gain their eternal reward naturally recalls the Biblical tradition that angels employed Jacob’s ladder as a celestial escalator.

The collapse of the World Tree was remembered as a colossal calamity. A Mocovi narrative attributes its destruction to the gnawing of an angry hag: “She did not stop until she had felled it, causing deep sorrow among the Mocovi and doing them irreparable harm.”<sup>39</sup>

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<sup>37</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Mocovi Indians* (Los Angeles, 1988), p. 46.

<sup>38</sup> M. A. van der Sluijs, “The Cosmic String of Pearls,” *Aeon* 6:4 (2003), p. 33.

<sup>39</sup> *Ibid.*, p. 46.

The Chamacoco tell of a time when a giant tree spanned the sky. One narrative reports that the Sun and Moon lived on Earth during that primeval period when the sky was nearer than now:

“This story is about the time when the sky was near...There was a tree called *eebe*...Well, the one which the people used to climb up and down between the sky and the earth was the *eebe*...It had many leaves which they could climb on like a ladder, and they would climb all the way up to the sky...There was no sun and no stars; all these were living among the people. Sun and Moon lived like human beings...When the insect cut down the tree and it fell, Sun and Moon left and moved up to the sky.”<sup>40</sup>

According to the Chamacoco, the collapse of the World Tree caused the major heavenly bodies to move away from Earth. And as a result of that cataclysmic event, the sky no longer rested on the Earth. The same basic idea is made explicit in the following Sikuani narrative:

“As the last liana [vine] was severed the tree fell to the ground. The sky moved upward, for previously it had been very low, near the top of the food tree...Then the flood came...Many people drowned. All the survivors gathered on Sibó, the hill that is shaped like the roof of a house. It was the only hill that was above water.”<sup>41</sup>

That a cataclysmic flood followed close upon the collapse of the World Tree is a theme we will encounter again in this study.

For the Makiritare of the Orinoco river region (Venezuela), the destruction of the World Tree marked the end of the world. In their sacred oral account of creation, known as Watunna, the following memory can be found:

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<sup>40</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Chamacoco Indians* (Los Angeles, 1987), pp. 31-33.

<sup>41</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Sikuani Indians* (Los Angeles, 1992), p. 214.

“Kadio cut Marahuaka. He cut it up there in Heaven. It was an upside down tree, with its roots on top. Then the great Marahuaka tree finally fell. It felt like the sky was falling. It was the end of the world.”<sup>42</sup>

The fact that the Marahuaka tree is elsewhere described as a towering mountain suggests that the Makiritare recognized the structural homology of the World Tree and World Mountain.<sup>43</sup>

The idea that a World Tree formerly joined heaven and earth is also attested in Australian lore. According to the Aborigines of the Great Australian Bight a giant tree named Warda upheld the sky.<sup>44</sup> A neighboring tribe tells of an ascent to heaven along a World Tree known as Bandara:

“The sacred tree Bandara, the tree of life...It was up the trunk of the Bandara tree that the high being Galalang climbed into the sky, after being killed by men who threw his body into the sea.”<sup>45</sup>

Analogous beliefs can be found across the Australian continent, as Diane Johnson has documented:

“The sky-world beyond the dome was envisaged as containing a hole, a window or a fissure, through which the traditional healers could gain entry...Among some Victorian groups there was a view that people used to be able to climb up an immense pine tree...up through its branches to the topmost ones which reached the sky...The tree was viewed as ‘a regular highway between earth and the upper regions’. Around the Roper River area, amongst the Alawa people in the Northern Territory, the link was also a tree...In an account of the Booandik people of South Australia, the healer (*pangal*)

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<sup>42</sup> M. de Civrieux, *Watunna: An Orinoco Creation Cycle* (San Francisco, 1980), p. 135.

<sup>43</sup> *Ibid.*, p. 78.

<sup>44</sup> D. Johnson, *Night Skies of Aboriginal Australia* (Sydney, 1998), p. 14.

<sup>45</sup> E. Worms, *Australian Aboriginal Religions* (Richmond, 1986), p. 27.

climbed to the sky-world quite regularly to visit and have social discourse with the sky people.”<sup>46</sup>

Here, once again, we meet with the idea of the World Tree as a road to heaven.

A World Tree spanning heaven is attested in Chinese lore as well, this despite the fact that a series of infamous book-burnings destroyed the vast majority of early mythological texts. In Chinese cosmology the World Tree was associated with the center of the world:

“The concept of the cosmic tree which forms the centre of the world may be traced in Chinese literature from the Chan-kuo period, in various guises. Sometimes it appears as a single tree, such as the Fu-sang or the Jo-mu; later it is known as the beautiful tree whose growth stems from a pair of trunks, the Mu-lien-li. At times the tree is conceived as connecting the three worlds of heaven, earth and the Yellow Springs; and as such it may be compared to the ladder by means of which Fu Hsi and his sister ascended to heaven. As the Fu-sang, the concept embraces the tree up which the sun climbs and descends, once daily.”<sup>47</sup>

Apparent here is the archaic belief that the daily epiphany of the ancient sun-god occurred in conjunction with a heaven-spanning tree.<sup>48</sup> Like so many of the mythological themes encountered in this monograph, this is an idea that will not be readily explained by reference to the familiar skies inasmuch as it is not possible for the current Sun to “climb and descend” the same tree once daily. Yet the very same idea is attested in ancient Egypt.<sup>49</sup>

Elsewhere in China the World Tree was known as Jianmu. Located at the center of the world, the Jianmu tree formed a ladder reaching to heaven:

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<sup>46</sup> D. Johnson, *op. cit.*, pp. 14-15.

<sup>47</sup> M. Loewe, *Ways to Paradise* (London, 1979), p. 111.

<sup>48</sup> See also S. Allan, *The Shape of the Turtle* (Albany, 1991), pp. 27, 44.

<sup>49</sup> See the discussion in I. Gamer-Wallert, “Heiliger Baum,” *LÄ, Vol. I* (Berlin, 1977), cols. 655-660.

“In the wilderness at Dukuang in the southwest was a heavenly ladder coming from a tree called *Jianmu*. *Jianmu*’s tall branches reached into the clouds, and the top branches circled and entwined in the shape of an umbrella. The *Jianmu* heavenly ladder was thought to have been in the center of the world, and it was here that the gods climbed between heaven and earth.”<sup>50</sup>

Aboriginal tribes from Indonesia likewise placed the World Tree at the center of the world. In primeval times it was possible to climb to heaven along this tree:

“The Bataks of Sumatra say that at the middle of the earth there was formerly a rock, of which the top reached up to heaven, and by which certain privileged beings, such as heroes and priests, could mount up to the sky. In heaven there grew a great fig-tree (*waringin*) which sent down its roots to meet the rock, thus enabling mortals to swarm up it to the mansions on high.”<sup>51</sup>

The location of the Tree-ladder at the “center of the world” confirms its intimate relationship to ancient conceptions of the *axis mundi*, the latter believed to connect heaven, earth, and the underworld.<sup>52</sup> The scholar who has done the most to elucidate the elaborate and multivalent symbolism associated with the *axis mundi* is the Romanian comparatist Mircea Eliade:

“If we try to achieve a general view of all the myths and rites just briefly reviewed, we are struck by the fact that they have a dominant idea in common: communication between heaven and earth can be brought about—or could be *in illo tempore*—by some physical means (rainbow, bridge, stairs, ladder, vine, cord, ‘chain of arrows’, mountain, etc., etc.). All of these symbolic images of the connection between heaven and earth are merely variants of the World Tree or the *axis mundi*...the myth and symbolism of the Cosmic

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<sup>50</sup> Y. Ke, *op. cit.*, p. 25.

<sup>51</sup> T. Gaster, *op. cit.*, p. 185.

<sup>52</sup> See the extensive discussion of this theme in M. Eliade, *Shamanism* (Princeton, 1964), pp. 259ff.

Tree imply the idea of a ‘Center of the World,’ of a point where earth, sky, and underworld meet.”<sup>53</sup>

In his discussion of the symbolism attached to the World Tree, Eliade concedes that it has hitherto eluded all attempts at a scientific classification or understanding: “There is a considerable amount of material; but it takes such a variety of forms as to baffle any attempt at systematic classification.”<sup>54</sup> The same scholar went on to pose the following question: “One wonders what mental synthesis, and from what special characteristics of trees as such enabled primitive mankind to produce so vast and so coherent a symbolism.”<sup>55</sup>

Upon ruling out a naturalistic explanation of the symbolism in question, Eliade sought a celestial prototype for the World Tree. Citing evidence from ancient Mesopotamia, the renowned comparativist offered the following observation:

“None of the emblems attached to trees can be interpreted in a naturist sense for the simple reason that nature itself was something quite different in Mesopotamian thought from what it is in modern thought and experience. We need only remind ourselves that to the Mesopotamians, as to primitive man in general, no being, no action that *means* anything has any effectiveness except in so far as the being has a heavenly prototype, or the action reproduces a primeval cosmological one.”<sup>56</sup>

Overlooked by Eliade—and by virtually every other comparativist of note—is the possibility that, in their traditions of the World Tree, the ancients were accurately describing their experience of a heavenly prototype (in figurative language, admittedly), one no longer present. How else are we to explain the fact that descriptions of the World Tree are so similar around the world and yet so at odds with the appearance of the modern heavens? As we intend to document in this chapter, the most logical explanation

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<sup>53</sup> *Ibid.*, pp. 492-493.

<sup>54</sup> M. Eliade, *Patterns in Comparative Religion* (New York, 1958), p. 265.

<sup>55</sup> *Ibid.*, pp. 267-268.

<sup>56</sup> *Ibid.*, p. 273.

of the evidence at hand is as follows: In primeval times a luminous tree-like apparition dominated the skies overhead, albeit in a solar system configured much differently than at present.

### **The Separation of Heaven and Earth**

In order to understand the ladder-to-heaven motif it is necessary to establish its proper mytho-historical context. The ladder-to-heaven, as we have seen, was said to have existed during that primeval period when heaven was closer to the earth than at present. This apparently universal belief in a former Age marked by the close proximity (or union) of heaven and earth is intimately related to a correlate belief—namely, that the gods once lived on earth and only departed with its separation from heaven. The gods themselves, in turn, are explicitly identified with the most prominent celestial bodies. We have already encountered this idea amongst the Chamacoco of South America, who held that “before the sky moved upward, when the sky was very near, Sun and Moon were still people.”<sup>57</sup>

Virtually identical beliefs will be found around the world. The following tradition from aboriginal Australia may be taken as representative in this regard:

“All over Australia, it is believed that the stars and planets were once men, women and animals in Creation times, who flew up to the sky as a result of some mishap on earth and took refuge there in their present form.”<sup>58</sup>

Fundamental to this constellation of interrelated mythological motifs is the belief that an epoch-ending catastrophe marked the rupture of the idyllic relations that formerly prevailed between gods and men, an event often linked directly to the collapse of the ladder-to-heaven. Prior to the catastrophe in question a veritable Golden Age had

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<sup>57</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Chamacoco Indians* (Los Angeles, 1987), p. 74.

<sup>58</sup> J. Isaacs, *Australian Dreaming, 40,000 years of Australian History* (Sydney, 1980), p. 141.

prevailed. According to the Chamacoco, it will be remembered, the celestial bodies only moved to heaven with the destruction of the World Tree:

“This story is about the time when the sky was near...There was a tree called *eebe*...It had many leaves which they could climb on like a ladder, and they would climb all the way up to the sky...There was no sun and no stars; all these were living among the people. Sun and Moon lived like human beings...When the insect cut down the tree and it fell, Sun and Moon left and moved up to the sky.”<sup>59</sup>

The spectacular events remembered as the “departure of the gods” were so mesmerizing and traumatic that ancient cultures everywhere sought to recreate or re-experience the Eden-like conditions that prevailed during the Golden Age. Indeed, countless rites were conducted with the express purpose of commemorating and reenacting the glorious time of the beginnings. Recall again the conclusion of Mircea Eliade, quoted earlier:

“If we try to achieve a general view of all the myths and rites just briefly reviewed, we are struck by the fact that they have a dominant idea in common: communication between heaven and earth can be brought about—or could be *in illo tempore*—by some physical means (rainbow, bridge, stairs, ladder, vine, cord, ‘chain of arrows’, mountain, etc., etc.). All of these symbolic images of the connection between heaven and earth are merely variants of the World Tree or the *axis mundi*...The myth and symbolism of the Cosmic Tree imply the idea of a ‘Center of the World,’ of a point where earth, sky, and underworld meet...The symbolism of the ‘Center of the World’ is also indissolubly connected with the myth of a primordial time when communications between heaven and earth, gods and mortals, were not merely possible but easy and within reach of all mankind. The myths we have just reviewed generally refer to this primordial *illud tempus*, but some of them tell of a celestial ascent performed by a hero or sovereign or sorcerer *after* communication was broken off; in other words, they imply the possibility, for certain privileged or elect persons, of returning to the origin of time, of recovering the

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<sup>59</sup> J. Wilbert & K. Simoneau, *Folk Literature of the Chamacoco Indians* (Los Angeles, 1987), pp. 31-33.



mythical and paradisaal moment before the ‘fall,’ that is, before the break in communications between heaven and earth.”<sup>60</sup>

Several volumes would be required in order to document the extraordinary popularity and influence of this belief-system. Mircea Eliade, in any case, has already adduced a large body of evidence. For our purposes here a few representative examples must suffice. The following tradition from the Papago Indians of Southwestern Arizona captures the essence of the primordial *illud tempus* motif:

“Those first days of the world were happy and peaceful. The sun was then nearer the earth than he is now: his rays made all the seasons equable and clothing superfluous. Men and animals talked together: a common language united them in bonds of brotherhood. But a terrible catastrophe put an end to those golden days. A great flood destroyed all flesh wherein was the breath of life.”<sup>61</sup>

Recognizable in the Papagoan account are the archetypal mythological motifs of the Golden Age, the Deluge, and apocalyptic cataclysm. Evident also is the widespread belief that the Sun stood nearer to the Earth in primeval times than at present.

Like countless other indigenous cultures, the Maya remembered a time when communication between heaven and earth was rendered easy by a “rope” suspended in the sky. Thus, a Yucatecan account of the Creation tells of a celestial road allowing ready trafficking between the two worlds:

“There was a road suspended in the sky, stretching from Tuloom and Coba to Chich’en Itza and Uxmal. This pathway was called the *kuxan sum* or *sakbe*. It was in the nature of a large rope [*sum*] supposed to be living [*kuxan*] and in the middle flowed blood. It was by this rope that the food was sent to the ancient rulers who lived in the structures in

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<sup>60</sup> M. Eliade, *Shamanism* (Princeton, 1964), pp. 492-493.

<sup>61</sup> J. Frazer, *Folklore in the Old Testament* (New York, 1988), p. 110.

ruins. For some reason this rope vanished forever. This first epoch was separated from the second by a flood called *Halyokokab*.”<sup>62</sup>

A primeval deluge, it will be noted, is said to have followed the “vanishing” of the celestial rope. This tradition mirrors the Papagoan report that a flood accompanied the catastrophe that marked the end of the Golden Age. It also recalls the Sikuani narrative wherein a great flood followed the collapse of the World Tree.

The Mayan belief that a giant rope served as a “road” to heaven finds a close parallel in the Old World. Thus it is that, in Manchuria, Tungus shamans refer to the celestial rope as a “road” to heaven.<sup>63</sup>

Analogous beliefs are attested from aboriginal Australia. According to the Ringa-Ringaroo, “ropes” descending from the planet Venus allowed for extraterrestrial visits:

“The Ringa-Ringaroo call the star Venus *mimungoona*, or *big-eye*, and believe that it is a fertile country covered with *bappa*, the name of a sort of grass, the seeds of which the tribes here on earth convert into flour, and is inhabited by blacks. It appears, however, that no water exists in the star, but there are ropes which hang from its surface to the earth, by means of which the dwellers visit our planet from time to time, and assuage their thirst.”<sup>64</sup>

In Africa sacred traditions tell of a “path” that formerly connected heaven and earth. It was by means of this path that men used to ascend to heaven to converse with the gods: “According to traditions of the Dinkas, heaven and earth were once connected by a path upon which men mounted to heaven at their pleasure.”<sup>65</sup>

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<sup>62</sup> D. Freidel, L. Schele, & J. Parker, *Maya Cosmos* (New York, 1993), p. 106.

<sup>63</sup> M. Eliade, *op. cit.*, p. 112.

<sup>64</sup> E. M. Curr, *The Australian Race, Vol. II* (Melbourne, 1886), p. 351.

<sup>65</sup> R. Pettazoni, *op. cit.*, p. 155.

The path to heaven, alternately described as a road or rope, was likened to a ladder-like structure. The collapse of the ladder-to-heaven, in Africa as in South America, was intimately related to the separation of heaven and earth in primeval times:

“The Heaven-ladder as rope or chain is the means of communication that connects the heavenly world with the earth; it was accidentally destroyed in primeval times. Heaven was separated from earth as a result, and in reality one could understand this myth as a variant of the myth of the separation of heaven and earth proper. Among the Pangwe, Vili and Hausa the Heaven-ladder even occurs together with the myth of the separation of heaven and earth.”<sup>66</sup>

The aboriginal peoples of Indochina tell of a navel-string that once connected heaven to earth. With the severing of the celestial *umbilicus* heaven moved away:

“In olden days, when the earth was very young, they say that heaven and earth were very near to one another, because the navel-string of heaven drew the earth very close to it. This navel-string of heaven, resembling flesh, linked a hill near Sumer with heaven. At that time all the subjects of the Siem of Myllem throughout his kingdom came to one decision, i.e. to sever the navel-string from that hill. After they had cut it, the navel-string became short; and, as soon as it shortened, heaven then ascended high. It was since that time that heaven became so high.”<sup>67</sup>

The report that the celestial navel-string resembled flesh recalls the “living” rope uniting heaven and earth in Maya lore. Indeed, the belief that the *axis mundi* was “flesh-like” in

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<sup>66</sup> H. Baumann, *Schöpfung und Urzeit des Menschen im Mythos der afrikanischen Völker* (Berlin, 1936), p. 209 reads as follows: “Die Himmelsleiter als Strick oder Kette ist das Verbindungsmittel, das die Welt der Himmlischen mit der Erde verbindet und in der Urzeit durch irgendeinen Zufall zerschnitten wurde. So wurde die Himmelssphäre von der Erde getrennt, und tatsächlich könnte man diese Mythen als Varianten der Himmel-Erde-Trennungsmysen echter Art (Emporheben des Himmels und so weiter) auffassen. Bei den Pangwe, Vili und Hausa kommen sogar Himmelsleiter und Himmel-Erde-Trennungsmythe zusammen vor.”

<sup>67</sup> W. Staudacher, *Die Trennung von Himmel und Erde* (Darmstadt, 1968), p. 26.

nature is attested around the globe. In ancient Mesopotamia, for example, the World Tree uniting heaven and earth was identified as the “flesh of the gods”:

“Where is the Mesu tree, the flesh of the gods, the ornament of the king of the universe? That pure tree...whose roots reached as deep down as the bottom of the underworld...whose top reached as high as the sky of Anum?”<sup>68</sup>

Sumerian lore preserves analogous ideas. Thus, in a Sumerian account of Creation, the god Enlil resolves to establish an *axis mundi* at Duranki, the latter word signifying a “bond” that stretched between heaven (An) and earth (Ki). The word *dur*, in turn, signifies “umbilical cord” as well as “bond,” a significant datum in light of the aforementioned traditions from Indonesia and Mesoamerica identifying the *axis mundi* as a “living” rope or umbilicus.<sup>69</sup> Significantly, the cosmic site associated with this singular event was known as “Where Flesh Came Forth”:

“Not only did the lord make the world appear in its correct form...Enlil, who will make the human seed of the land come [forth] from the [earth]—and not only did he hasten to separate heaven from earth, and hasten to separate earth from heaven, but, in order to make it possible for humans to grow in [Where Flesh Came Forth] (two manuscripts have instead ‘Where Flesh Grew’, the name of a cosmic location) he first suspended the axis of the world at Dur-an-ki.”<sup>70</sup>

As for how we are to understand this “bond” uniting heaven and earth from the standpoint of natural science, scholars have nothing constructive to offer. In a discussion of the difficulty in distinguishing between history and metaphor in these early texts, Françoise Bruschweiler asked the following all-important question:

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<sup>68</sup> L. Cagni, *The Poem of Erra* (Malibu, 1977), p. 32.

<sup>69</sup> J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 51.

<sup>70</sup> J. Black et al, “The Song of the Hoe,” *The Electronic Text Corpus of Sumerian Literature* (<http://www-etcsl.orient.ox.ac.uk/>) (Oxford, 1998), lines 1-7. Hereafter ETCSL.

“How was that which we regard as myths experienced by peoples who conveyed them and were perhaps their inventors?...The name Duranki, ‘bond between heaven and earth’: is it only a symbolic image or do we have to imagine a time when, in spite of what we think is possible, the Earth was linked with the sky and men kept company with the gods?”<sup>71</sup>

Bruschweiler is one of the few commentators to even pose this seemingly obvious question. That said, no reputable scholar, to the best of my knowledge, has ever seriously entertained the possibility that “heaven” and “earth” were formerly linked by a “bond,” Tree, or ladder. Yet as we will argue, this is not only the most logical explanation for such widespread traditions, it is the one explanation that is consistent with the evidence.

## Creation

The Egyptian Pyramid Texts represent the world’s oldest body of religious hymns. Several passages tell of a former age wherein heaven and earth were closer together than at present. One hymn recalls the occasion “when the sky was separated from the earth, when the gods ascended to heaven.”<sup>72</sup> This memorable event, in turn, was a hallmark of Creation and was associated with a great cataclysm shaking the universe.<sup>73</sup>

The sacred literature of ancient India likewise recalls a time when heaven and earth were joined. Thus, the *Aitareya Brahmana* reports that Dyaus and Prithivi, “originally one, were afterwards separated.”<sup>74</sup>

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<sup>71</sup> F. Bruschweiler, *Inanna la déesse triomphante et vaincue dans la cosmologie sumérienne* (Leuven, 1988), p. 155. Translation by Birgit Liesching.

<sup>72</sup> 1208 C as quoted in R. Faulkner, *The Ancient Egyptian Pyramid Texts* (Oxford, 1969), p. 192. See also the discussion in C. Eyre, *The Cannibal Hymn* (Liverpool, 2002), pp. 76-77.

<sup>73</sup> J. Allen, “The Cosmology of the Pyramid Texts,” in J. Allen et al eds., *Religion and Philosophy in Ancient Egypt* (New Haven, 1989), p. 13.

<sup>74</sup> IV. 4. 27 as quoted by R. Pettazoni, *op. cit.*, p. 154.

In the *Rig Veda*, it is the divine champion Indra who is credited with separating heaven from earth. The following hymn alludes to this heroic feat:

“Indra hath evermore possessed surpassing power: he forced, far from each other, heaven and earth apart.”<sup>75</sup>

The separation of heaven and earth is said to have occurred shortly after Indra’s birth amidst cataclysmic circumstances:

“Before the High God, at his birth, heaven trembled, earth, many floods and all the precipices. The Strong One [i.e., Indra] bringeth nigh the Bull’s two parents.”<sup>76</sup>

The translator of the *Rig Veda*, Ralph Griffith, offered the following commentary with regards to this passage: “The meaning of the second line is, Indra brings near, but holds apart, the heaven and the earth, the parents of the mighty Sun.”<sup>77</sup>

After separating heaven from earth, Indra comes to serve as a sort of Vedic Atlas, offering the tottering heaven support. The cataclysmic context of Indra’s primeval deeds is explicit, much as in the Egyptian account of the separation of heaven and earth:

“He who, just born, chief God of lofty spirit by power and might became the God’s protector. Before whose breath through greatness of his valor the two worlds trembled, He, O men, is Indra...He who fixed fast and firm the earth that staggered, and set at rest the agitated mountains, Who measured out the air’s wide middle region and gave the heaven support, He, men, is Indra.”<sup>78</sup>

Indra’s role as the support of heaven was much celebrated in Indian ritual. One rite saw the Vedic war-god being identified with a May-pole like structure known as the Indra-

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<sup>75</sup> X:113:5.

<sup>76</sup> IV:22:4

<sup>77</sup> R. Griffith, *The Rig Veda* (New York, 1992), p. 216.

<sup>78</sup> II:12:1-4

tree. Jan Gonda offered the following summary of this symbolism: “The pole is explicitly identified with Indra himself who in one of the earliest references to these ceremonies (*MBH* 1, 57, 22ff.) is said to have promised his worshippers aid and support.”<sup>79</sup>

That Indra’s tree symbolizes the World Tree, or *axis mundi*, has long been acknowledged. Its mythical prototype, according to Jan Gonda, was to be found in heaven: “It should however be borne in mind that the Indra tree like the sacrificial post (*yupa*) and similar stakes and other objects might be considered a representative of the great cosmic tree, and of the *axis mundi*.”<sup>80</sup>

In a detailed analysis of Indian cosmogonical traditions, Kuiper noted that Indra’s tree was inseparable from the *axis mundi*. The origin of the tree, in turn, could be traced to the events surrounding the separation of heaven and earth:

“This tree belonged to the dual cosmos, since it was identical with the cosmic pillar which, in the center of the world, kept heaven and earth apart. It must accordingly have arisen when the sky was separated from the earth. The obvious conclusion is that Indra, *at the moment* when he ‘propped up’ the sky, must have been identical with the tree.”<sup>81</sup>

The birth of Indra, as we have elsewhere documented, was intimately related to the cataclysmic events recalled as Creation.<sup>82</sup> Creation itself, as Coomaraswamy and other scholars have documented, involved a forcible “pillaring apart of heaven and earth.”<sup>83</sup> What could the Vedic scribes have had in mind in describing a pillaring apart of heaven and earth? As unusual as these cosmogonical traditions appear at first sight, here, too, strikingly similar traditions are to be found around the globe.

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<sup>79</sup> J. Gonda, “The Indra Festival According to the Atharvavedins,” *JAOS* 87 (1967), p. 414.

<sup>80</sup> *Ibid.*, p. 417.

<sup>81</sup> F. Kuiper, *Ancient Indian Cosmogony* (Leuven, 1983), pp. 12-13.

<sup>82</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 81-87.

<sup>83</sup> A. Coomaraswamy, *Symbolism of Indian Architecture* (Jaipur, 1983), p. 47.

In the New World, a Mayan name for the World Tree was *Wakah-Chan*, signifying “raised up sky.”<sup>84</sup> The Maya, like the Olmecs before them, believed that Creation was marked by the erection of the World Tree, the latter event signaling the separation of heaven and earth: “The classic texts at Palenque tell us that the central axis of the cosmos was called the ‘raised-up sky’ because the First Father had raised it at the beginning of creation in order to separate the sky from the earth.”<sup>85</sup>

Doubtless it is no coincidence that advanced cultures in the New World as well as the Old report that the erection of the World Tree was coincident with Creation and the separation of heaven and earth.

Similar conceptions are attested in ancient China. In a review of Chinese cosmogonical traditions, John Major points to a “coherent body of myths of great antiquity.” Extrapolating from the findings of Giorgio de Santillana and Hertha von Dechend, Major summarizes the primary motifs as follows:

“The Grand Origin Myth described by de Santillana and von Dechend exists in many local versions, of course, but all share the following essential points: (a) a concept of a time before heaven and earth were separated, when men and gods communicated without hindrance; (b) an *axis mundi*—described variously as a mountain, a tree, or an axle—associated with streams or a whirl-pool draining and recirculating the waters; (c) an account of the destructive drawing apart of heaven and earth, usually associated with (d) the breaking of communication between gods and men, expressed in an expulsion myth. The same cosmic separation produces (e) a catastrophic, world-engulfing flood, finally conquered by a hero who renders the earth fit for renewed habitation, opening the era of human history.”<sup>86</sup>

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<sup>84</sup> D. Freidel, L. Schele, & J. Parker, *Maya Cosmos* (New York, 1993), p. 53.

<sup>85</sup> *Ibid.*

<sup>86</sup> J. Major, “Myth and Origins of Chinese Science,” *Journal of Chinese Philosophy* 5 (1978), p. 3.



Like de Santillana and von Dechend before him, Major assigns the planets a prominent role in ancient myth. Most significantly, perhaps, Major speculates that the aforementioned mythological motifs date back to Neolithic times:

“Thus it is clear that all of the elements of the Grand Origin Myth described by de Santillana and von Dechend are present in Chinese mythology, and that it is probably more reasonable to accept than to reject the unproven (and perhaps unproveable) hypothesis that those Chinese myths greatly predate their first appearances in texts and indeed describe a cosmological view that goes back to the earliest levels of Chinese culture. This is to say that the ancient Chinese shared a coherent and well-articulated protoscientific world-view that was the common property of Late Neolithic and early Bronze Age peoples throughout the ancient civilized world.”<sup>87</sup>

It will be noted that Major recognizes the central importance of primeval catastrophe in Chinese myth and cosmogony. Yet at no point does he inquire whether there was a historical dimension to the archetypal mythological motifs in question. In this he follows the example set by the authors of *Hamlet's Mill*, who likewise turned a deaf ear to the ancients' explicit testimony vis a vis the catastrophic origins of the present world.

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<sup>87</sup> *Ibid.*, p. 8.

## 2. Mars and the Ladder to Heaven

“The extermination of the past—by design, by neglect, by good intention—is what characterizes the history of our time.”<sup>88</sup>

Ancient Mesopotamia is commonly regarded as the birthplace of advanced civilization. In addition to inventing writing, Mesopotamian cultures produced some of the world’s oldest literature, much of which is known to have had a formative influence on the myths and legends of neighboring cultures. In an epic known as *Nergal and Ereshkigal*, attested from copies dating to the 7th century BCE (Sultantepe) and from the Middle Babylonian period (El-Amarna)—but doubtless reflecting much older traditions—there occurs a curious episode involving a scaling of heaven. In the text in question the war-god Nergal is described as ascending a ladder or stairway to heaven (*simmilat šamâmi*),<sup>89</sup> ostensibly to reach the assembly of the gods:

“Nergal came up the long stairway of heaven. When he arrived at the gate of Anu, Ellil, and Ea, Anu, Ellil, and Ea saw him and said, ‘The son of Ishtar has come back to us.’”<sup>90</sup>

As a result of climbing the ladder-to-heaven—or perhaps it was because of his impudence in daring to confront the gods in such bold fashion—Nergal is said to have “shrunk” in size and become deformed in some manner (the god is described as “withered,” “crooked,” “bald,” and with wildly rolling eyes).<sup>91</sup>

That this episode formed a central element in Nergal’s mythology is confirmed by the fact that the war-god is linked to the ladder-to-heaven during the Kassite period as well (ca. 1500-1200 BCE). Thus, in a document known as “The Duties and Powers of the

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<sup>88</sup> T. Judt, *Reappraisals* (New York, 2008), p. 72.

<sup>89</sup> The phrase *simmilat šamâmi* can signify “ladder of heaven” as well as “stairway of heaven.” See the discussion in A. Oppenheim, “Man and Nature in Mesopotamian Civilization,” in C. Gillispie ed., *Dictionary of Scientific Biography, Vol. 15* (New York, 1978), p. 640.

<sup>90</sup> Translation from S. Dalley, *Myths from Mesopotamia* (Oxford, 1991), p. 171. See also the discussion in E. von Weiher, *Der babylonische Gott Nergal* (Berlin, 1971), p. 52; O. Gurney, “The Sultantepe Tablets,” *Anatolian Studies* 10 (1960), pp. 125, 130.

<sup>91</sup> E. von Weiher, *op. cit.*, p. 52.

Gods,” it is written: “for Nergal, the ‘stairway’? of the underworld, where the Anunnaki draw near...”<sup>92</sup>

An important question confronts us at this point: Why was Nergal renowned for climbing the celestial ladder? In order to answer this question it is instructive to briefly summarize what is known about this particular god.

## Nergal

Nergal is best known, perhaps, by virtue of his mention in the Old Testament.<sup>93</sup> The chief god of Kutha, a city in northern Babylonia, Nergal’s cult can be traced throughout the entire range of Akkadian influence, from Mari to Babylon to Sumer.<sup>94</sup> The god’s cult is attested in early Sumerian texts and remained strong even in late Babylonian and Parthian times, a period spanning over two thousand years.<sup>95</sup>

In the past century a wealth of evidence has come to light regarding the god’s fundamental nature. Nergal was first and foremost a raging warrior, the god’s name occasionally serving as a synonym for war.<sup>96</sup> Numerous hymns attest to Nergal’s prowess as a warrior, of which the following is typical in this regard:

“Warrior! Raging storm-tide, who flattens the lands in upheaval, Warrior! Lord of the Underworld...Raging storm-tide, who has no rival, Who wields the weapon, who raises the troops.”<sup>97</sup>

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<sup>92</sup> W. Horowitz, *Mesopotamian Cosmic Geography* (Winona Lake, 1998), p. 360. The phrase translated here as “stairway” is kun.sag.kur.ra, kun.sag elsewhere being given as an equivalent to *simmiltu* *Ēa giginê* ‘stairway of a temple-tower’.”

<sup>93</sup> *II Kings* 17:30.

<sup>94</sup> E. Weiher, *Der babylonische Gott Nergal* (Berlin, 1971), pp. 25, 37.

<sup>95</sup> *Ibid.*, p. 104.

<sup>96</sup> *Ibid.*, p. 70.

<sup>97</sup> J. Curtis, “An Investigation of the Mount of Olives in the Judaeo-Christian Tradition,” *HUCA* 28 (1957), p. 156.

Inscriptions of Naram-Sin, Hammurabi, Esarhaddon, and Ashurbanipal invoke the god's aid in battle. Witness the following passage from the epilogue of Hammurabi's Law Code: "May Nergal, the strong one among the gods, the fighter without peer, who achieves victory for me, burn his [i.e., the enemy's] people in his great power, like the raging fire of swamp-reeds!"<sup>98</sup> Hammurabi elsewhere invokes Nergal to insure the efficacy of curses:

"May Nergal, mighty amongst the gods, the warrior whom none can resist, who has fulfilled my eager desire, by his great power consume his people like a fire raging amongst the rushes, may he cleave him asunder with his mighty weapon and shatter his limbs as of a statue of clay."<sup>99</sup>

Nergal's belligerent nature knew no bounds. According to one hymn, the god's wrath threatened the domain of the gods as well:

"O warrior, splendid one...Mighty of arms, broad of chest, perfect one without rival among all the gods, Who grasps the pitiless deluge-weapon, who massacres (?) the enemy, Lion clad in splendor, at the flaring-up of whose fierce brilliance, The gods of the inhabited world took to secret places..."<sup>100</sup>

In addition to his function as a warrior, Nergal was also venerated as a god of the underworld.<sup>101</sup> Indeed, the ancients understood the god's name to mean "lord of the underworld."<sup>102</sup>

In the astral religion of ancient Mesopotamia, Nergal was early on identified with the planet Mars. This identification is attested already during the Old-Babylonian period and

<sup>98</sup> W. Fulco, *The Canaanite God Rešep* (New Haven, 1976), p. 37.

<sup>99</sup> E. von Weiher, *Der babylonische Gott Nergal* (Berlin, 1971), p. 100.

<sup>100</sup> B. Foster, *Before the Muses: An Anthology of Akkadian Literature* (Bethesda, 2005), p. 706.

<sup>101</sup> T. Jacobsen, *The Harps That Once...* (New Haven, 1987), p. 170.

<sup>102</sup> E. von Weiher, *op. cit.*, p. 4. See also W. Lambert, "Studies in Nergal," *Bibliotheca Orientalis* 30:5/6 (1973), p. 356.

is apparent in all subsequent periods of the god's cult.<sup>103</sup> The following hymn from Uruk emphasizes the god's astral nature:

“[O Nergal], warrior of the gods, who possesses the lofty strength of Anu, [Lion] with gaping maw, marauding lion monster, who takes his place nobly in the height of heaven, [Who hold]s lordship, whose features ever glow in heaven...[O Nergal, warrior] of the gods, long of arms, whose divine splendor is sublime in heaven, [Star] ever shining, sublime of features.”<sup>104</sup>

Astrological omens associate the planet Mars with war, the outbreak of pestilence, and eclipses of the sun. A folk etymology of the planet's name—MUL sal-bat-a-nu—explained it as *mustabarru mutanu*: “(the planet) which spreads plague.”<sup>105</sup>

As we have argued elsewhere, it is our opinion that Nergal's identification with the red planet provides the all-important point of reference for deciphering the curious traditions surrounding this god.<sup>106</sup> This position, it must be admitted, stands in stark contrast to conventional opinion. The majority view, expressed most forcefully by Franz Cumont, regards the anciently attested attributes of the respective planets as myth-based in origin and hence largely arbitrary and nonobjective in nature:

“The qualities and influences which are attributed to them are due sometimes to astronomical motives...But most frequently the reasons assigned are purely mythological.”<sup>107</sup>

According to the orthodox view, the connection between Mars and war or an ascent to heaven originated with ancient Babylonian speculations regarding the respective planets and is thus wholly subjective in nature, stemming from the arbitrary identification of the

<sup>103</sup> E. von Weiher, *op. cit.*, p. 76.

<sup>104</sup> B. Foster, *op. cit.*, pp. 708-709.

<sup>105</sup> F. Wiggerman, “Nergal,” *Reallexikon der Assyriologie* 9 (1999), p. 223.

<sup>106</sup> See the discussion in E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 8-18.

<sup>107</sup> F. Cumont, *Astrology and Religion Among the Greeks and Romans* (New York, 1960), p. 66-67.

red planet with Nergal. The planet Jupiter, according to this view, might just as easily have been assigned Nergal as regent and thus come to be associated with an ascent to heaven or rulership of the underworld. This is a reasonable position and not to be dismissed out of hand. It is easy to understand, moreover, why scholars would be inclined to accept this explanation of Martian lore as it is very difficult to explain Nergal's peculiar attributes by reference to the red planet's familiar behavior and appearance.

We would propose the following test: If Nergal/Mars' association with war and/or an ascent to heaven truly stems from the Mesopotamian cult of Nergal and not from the witnessed historical behavior of the red planet, one would hardly expect to find similar reports from the New World. That is, of course, unless one would be willing to entertain the possibility of a diffusion of Babylonian astronomy to the New World, a hypothesis for which there is not a shred of evidence. However, should New World cultures preserve traditions paralleling those from the ancient Near East a *prima facie* case would be made for the thesis defended here, which holds that the characteristic mythological traditions surrounding the respective planets stem from objective astronomical events and observations.

### **Tales from the Watunna**

The *Watunna* is a compendium of sacred lore of the Makiritare Indians, an indigenous tribe living along the Orinoco river in South America (modern Venezuela). It recounts the adventures of the heavenly ancestors in primordial times. Still living in the Stone Age, the Makiritare have remained virtually free from outside influence apart from an occasional visit from a Spanish explorer or anthropologist. Indeed, according to Marc de Civrieux, the anthropologist who first recorded the *Watunna*, "this region of mountains and virgin forest has remained almost unexplored up to this day."<sup>108</sup>

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<sup>108</sup> M. de. Civrieux, *Watunna: An Orinoco Creation Cycle* (San Francisco, 1980), p. 1.

Prior to being transcribed by de Civrieux, the *Watunna* had been preserved as an oral tradition for untold millennia, an enduring testament to the power and reliability of human memory:

“This tradition, which the Makiritare call *Watunna*, has been handed down from generation to generation since the beginning of time in a series of magico-religious festivals known as Wanwanna...The *Watunna* is in its essence a secret teaching restricted to the circle of men who undergo the initiations of the Wanwanna festivals.”<sup>109</sup>

The *Watunna* begins with an account of the idyllic conditions at the dawn of time associated with Creation. During that period a veritable Golden Age prevailed:

“There was Kahuna, the Sky Place. The Kahuhana lived there, just like now...They never died. There was no sickness, no evil, no war. The whole world was Sky. No one worked. No one looked for food. Food was always there, ready...In the highest Sky was Wanadi, just like now. He gave his light to the people, to the Kahuhana...Because of that light, the people were always happy. They had life. They couldn’t die. There was no separation between Sky and Earth...Wanadi is like a sun that never sets. It was always day. The Earth was like a part of the sky.”<sup>110</sup>

Recognizable here is the familiar belief that, during the Golden Age, heaven and earth were not yet separated. Most significant, however, is the report that “Wanadi is like a sun that never sets.” The ever present and “stationary” Sun is a theme to which we will return in a subsequent chapter.

Among the archetypal mythological themes preserved in this document is an account of a hero’s ascent to heaven by means of a ladder formed from a chain of arrows:

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<sup>109</sup> *Ibid.*, p. 12.

<sup>110</sup> *Ibid.*, p. 21.

“We’re going to heaven. Okay. Who’ll go? Who’ll be first? Who’s going with the arrows?” There was another man named Ahishama. He was very wise. ‘Can you?’ Wlaha asked. ‘I’ll go,’ Ahishama answered...He turned him into a bird. He was beautiful, brilliant, with orange-colored feathers, and very fast and light. His name was Ahishama, the troupiat [a species of bird]. There was another man. ‘Can you?’ ‘I’ll go.’ He turned him into a frog...They called him Kütto...Wlaha shot. The arrow sped out. It flew up. Troupiat flew up. Frog leapt. Wlaha screamed: ‘Fly! Jump! Catch it! Tie it!’ Ahishama was carrying the end of a vine in his beak. We call that vine he had *sahudiwa*, vine-chain. It’s a long, long vine, all wrinkled and creased...The seven Wlaha shot another arrow and then another and another. Seven arrows in all. They hung there in space, seven rungs tied to that big vine. It was the ladder, the road to Heaven. That Troupiat and that Frog built it. Ahishama and Kütto. They climbed up without a ladder. When they built it there was no road.

They were the first ones to arrive. Right away they changed. They started shining. They were the first two stars in the black night. The very first was Ahishama, then Kütto. Now that Troupiat named Ahishama burns orange (Mars). He built the ladder in space. That’s what they say.”<sup>111</sup>

Here, as in Mesopotamia, we find the planet Mars mentioned in connection with an ascent along a celestial ladder, the ladder itself being described as the “road to Heaven.” The very origin of the extraterrestrial ladder, moreover, is traced to the red planet. If nothing else, this remarkable tradition bolsters our claim that astronomical imagery informs the ancient myths. How, then, are we to explain the specific content of the Makiritare narrative?

In recent years some scholars have sought to invoke diffusion in order to explain the striking parallels in astral lore to be found in the New World as well as the Old. Linda Schele, arguably the most important Mayanist working in the latter part of the 20<sup>th</sup>

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<sup>111</sup> *Ibid.*, pp. 113-114.



century, offered the following opinion with regard to the intimate link between Maya religion and astronomy:

“It seems that the interaction of astronomy and mythology was common in other cultures as well [as it was among the Maya]. Scholars working in South America have found similar kinds of systems in the Amazon...The Maya may have been using a way of thinking about the sky and using it in their mythology that was very ancient indeed. I’m even prepared to accept that much of the cosmology/mythology came straight across the Bering Strait, and that it may be 10,000 or 15,000 years old; it may be 20,000 years old. I think it may be possible that we have tapped into a very ancient stratum of human thought. If it did come across with the first Americans, then we may be in touch with one of the two or three great human intellectual traditions that we as a species have ever evolved, part of the fundamental ‘software’ that all of the peoples of the Americas and Asia have utilized.”<sup>112</sup>

That there has been significant diffusion of astral lore is impossible to deny. Thus, it is well documented that Babylonian astronomical traditions spread to China, India, and Greece during the period between 500 BCE and 200 AD. Yet diffusion alone will never explain the presence of the Mars-ladder theme in the Amazonian rain forests. Certainly there is no reason to suspect that the Makiritare Mars-lore stems from ancient Mesopotamia itself, for there is no evidence whatsoever to suggest that Babylonian astronomical conceptions made their way to the New World. Diffusion from anywhere in the Old World, in any case, is extremely unlikely given the secluded existence long maintained by these natives of Venezuela. Indeed, the only conceivable way diffusion could account for the remarkable correspondence between the Babylonian and Makiritaran traditions would be for the Paleolithic ancestors of the Makiritare to have carried their version of the Mars-ladder story with them from the Old World (across the Bering Strait, for example). But this particular scenario is also improbable since it would

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<sup>112</sup> Quoted in R. Wertime & A. Schuster, “Written in the Stars: Celestial Origin of Maya Creation Myth,” *Archaeology* 46:4 (July/August, 1993), p. 32.

seem to require that the Mesopotamian lore surrounding Nergal stemmed from the same cultural milieu (Siberia?), a supposition for which there is not an iota of evidence.

A more logical hypothesis, in our view, would explain the analogous mythological motifs as the product of common experience—in this case, by commonly witnessed planetary events. The ancient Babylonians, like the Makiritare, linked the red planet with a ladder-to-heaven for the simple reason that that particular planet formerly appeared in close proximity to a giant ladder-like structure spanning heaven.

From the oral traditions of the South American rain forests, we turn to consider the sacred lore from the Australian outback.

### **Waijungare**

Australia was discovered in the early part of the seventeenth century by Dutch explorers. At the time, it was unknown that a significant population of indigenous peoples occupied the continent, estimated to have then exceeded one million individuals. Once the Aborigines were discovered, it did not take long for the new emigrants to begin a campaign of mass extermination. By the nineteenth century, at which point anthropologists earnestly set about collecting the sacred lore of the respective local tribes, the Aboriginal population had dwindled to some ten thousand individuals. It is simply impossible to estimate the wealth of traditional knowledge lost because of this genocidal holocaust. The few vestiges of astronomical lore that have survived suggest that the loss was very substantial indeed.

Virtually every anthropologist who has spent time with the Australian Aborigines has remarked upon the celestial elements in their art, myths, and rituals. Edward Curr, for example, offered the following observation:

“Many tribes—I believe all—thought that the stars were intimately mixed up with their affairs. Some asserted that certain stars were the dwelling-places of the first fathers of their tribes.”<sup>113</sup>

Interest in astronomical matters extended to the various planets as well. Indeed, it has been claimed that the Aborigines showed a “remarkable interest in the movement of the planets.”<sup>114</sup>

Of direct relevance for the present discussion is an intriguing tradition collected from the Yarlalde, an aboriginal tribe residing along the lower Murray River in South Australia. Once upon a time, according to the oral account, a hero named Waijungare threw a spear to heaven which, upon sticking, served as a ladder by which he ascended to heaven:

“Waijungare began to think how he could escape the wrath of his brother, and threw a spear up to the sky, which touched it, and came down again. He then took a barbed spear, and throwing it upwards with all his force, it remained sticking in the sky. By this he climbed up, and the two women after him.”<sup>115</sup>

Here one recognizes a variation upon the “chain of arrows” theme. Since the Australian Aborigines did not know the use of bows and arrows, a spear—rather than arrows—served as the means by which heaven was scaled. Most important, however, is the identification of the hero in question: According to the Yarlalde, Waijungare was the planet Mars.<sup>116</sup>

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<sup>113</sup> E. Curr, *The Australian Race, Vol. 1* (Melbourne, 1886), p. 50.

<sup>114</sup> H. Cairns, “Aboriginal sky-mapping,” in C. Ruggles ed., *Archaeoastronomy in the 1990’s* (Leicestershire, 1993), p. 139, quoting Tindale.

<sup>115</sup> J. Wyatt, “Some accounts of the manners and superstitions of the Adelaide and Encounter Bay Tribes,” in J. Woods ed., *The Native Tribes of South Australia* (Adelaide, 1879), p. 201.

<sup>116</sup> W. Tindale, “The Legend of Waijungari...,” *Records of the South Australian Museum* 5:3 (1935), pp. 261-274. I am indebted to Dave Talbott for this reference. See his discussion in “Servant of the Sun-God,” *Aeon* 2:1 (1990), pp. 47-48.

Having now documented traditions of a Martian ascent to heaven in Australia, Asia, and South America, one can begin to appreciate the extent and remarkable durability of this particular myth. Indeed it is safe to say that the myth of Mars's ascent to heaven is attested on every inhabited continent except Europe and is so widespread as to be global in nature.

Granted the apparent universality of the ladder-to-heaven motif, how are we to explain its origin? Why would disparate cultures around the world describe a primeval ladder-to-heaven along which gods and souls periodically ascended and descended?

Astronomers have speculated that this or that celestial phenomenon inspired these widespread beliefs. Ed Krupp, for example, pointed to the Milky Way as the celestial prototype for the ladder-to-heaven:

“So the Milky Way connects heaven with Earth and provides a path for the journey. Although its light seems faint compared with the focused brilliance of single stars, it is huge. It belts the entire sky and completely embraces the Earth. It moves with a delicate grandeur that suggests that somehow it, too, controls the decorum of heaven and affairs below.”<sup>117</sup>

That a “Milky Way” in the sky was often compared to a ladder or path leading to heaven is undeniable, although we would deny that the Way in question had anything to do with the band of stars that currently bears that name.<sup>118</sup> In any case, it is far from obvious how Krupp's thesis helps us to understand the unique constellation of motifs attached to the ladder-to-heaven. How are we to account for the traditions reporting that the ladder was destroyed in a primeval cataclysm and is thus no longer available to the respective gods (or souls) in their attempt to scale the Olympian heights? And why would the collapse of the ladder-to-heaven be linked to the end of the world if, as Krupp maintains, the original

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<sup>117</sup> E. Krupp, “Negotiating the Highwire of Heaven: The Milky Way and the Itinerary of the Soul,” *Vistas in Astronomy* 39 (1995), p. 413.

<sup>118</sup> E. Cochrane, “The Milky Way,” *Aeon* 4:4 (1996), pp. 39-66.

reference was to the Milky Way? The last time I checked, the Milky Way—like the world itself—was still intact and in perfectly good working order.

Other traditions are equally difficult to reconcile with Krupp's hypothesis. Why would a ladder centered on the Milky Way be associated with the Sun? How are we to understand the mythical heroes who, in primeval times, made a habit of ascending the ladder? And if shamans have always viewed the Milky Way as a ladder leading to heaven, why is it deemed necessary to magically re-create the idyllic conditions surrounding the prototypical ladder in modern rites? One would assume that modern shamans, like their forebears, could simply mount the familiar Milky Way and climb away. In fact, a systematic analysis of the various mythological themes associated with the ladder-to-heaven will show that nary a one can be explained by reference to the diffuse band of stars currently known as the Milky Way.

Mircea Eliade offered a slightly more esoteric interpretation of the aforementioned myths and rituals associated with the ladder-to-heaven. It was his view that the symbolic ascents expressed ancient man's desire for absolute freedom:

“What is the meaning of all these shamanic myths of ascent to Heaven...? They all express a break with the universe of daily life. The twofold purpose of this break is obvious: it is the transcendence and the freedom that are obtained, for example, through ascent, flight, invisibility, incombustibility of the body...The desire for absolute freedom—that is, the desire to break the bonds that keep him tied to earth, and to free himself from his limitations—is one of man's essential nostalgias. And the break from plane to plane effected by flight or ascent similarly signifies an act of transcendence;...Indeed, all the myths, rituals, and the legends that we have just reviewed can be translated as the longing to see the human body act after the manner of a spirit, to transmute man's corporeal modality into the spirit's modality.”<sup>119</sup>

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<sup>119</sup> M. Eliade, *Rites and Symbols of Initiation* (New York, 1958), p. 101.

Eliade's hypothesis, like that of Krupp, fails to explain virtually every single mythical tradition associated with the ascent to heaven. Why is the ladder-to-heaven compared to a tree, vine, or rope? Why is the planet Mars identified as the celestial prototype for the ascent to heaven? How are we to understand the cataclysmic elements of the ladder-to-heaven myth—the collapse of the ladder, the concomitant flood, and the departure of the celestial bodies? An explanation that ignores such fundamental elements of the story is no explanation at all.

The ladder-to-heaven itself, according to Eliade, is simply a variation upon the widespread theme of the *axis mundi*. By *axis mundi*, Eliade—following Holmberg—has reference to the World Axis associated with the celestial Pole. Thus, it is well known that the North Pole offers the one place where the stars never rise or set but remain ever visible, revolving about the circumpolar region. For the terrestrial skywatcher in the northern hemisphere, the Pole Star forms the “center” of the sky. That is, of course, until precession displaces the Pole star and its stellar neighbors to the point at which they are no longer perpetually visible. Holmberg summarized this idea as follows:

“The regular diurnal movement of the stars round an axis at the North Star, the reasons for which neverending rotation were earlier unknown, gave birth to an idea that their apparent center of the universe was formed by some object which could be represented in concrete forms, and which was, in addition, believed to support the roof of the sky.”<sup>120</sup>

Holmberg's hypothesis has a good deal of merit: the *axis mundi* did, in fact, reference a celestial axis in the northern polar regions. But this is only part of the story. How does the hypothesis defended by Holmberg and Eliade help us to understand the origin of the countless stories of a hero's ascent to heaven along a ladder or tree? Even if it is granted that primitive cultures were cognizant of the abstract (and invisible) axis that extends from Earth to the Pole Star—a most unlikely proposition—it is highly unlikely that

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<sup>120</sup> U. Holmberg, “Finno-Ugric, Siberian Mythology,” in L. Gray ed., *The Mythology of All Races, Vol. IV* (Boston, 1927), p. 333.

virtually every such culture would imagine that an ascent to heaven could occur by means of this ethereal pillar.

It must also be questioned whether it is likely that cultures around the world would localize the transmigration of souls along this same invisible axis, the latter invariably ascribed a tangible form. Is it conceivable that such ideas would occur spontaneously to ancient skywatchers around the globe upon gazing up at the dark region centered on the Pole Star?

Despite the fact that the respective hypotheses of Krupp and Eliade fail to explain the multifaceted traditions associated with the ladder-to-heaven, we can agree that they were right to seek a celestial prototype for such global themes. If not by reference to the familiar Milky Way or polar axis, how, then, are we to understand the ladder-to-heaven?

### **The Ladder to the Sun**

Traditions reporting that ascent along the ladder-to-heaven leads to the house of the Sun are of paramount importance in understanding the mythical motif in question. We have already encountered this belief in South America and analogous traditions will be found around the globe. Thus, a Wasco narrative (Oregon) locates the ladder of arrows near the sun: "A boy shoots arrows up in the air, makes a chain, which he climbs; he then follows a trail which leads him to the Sun's house."<sup>121</sup>

Boas records a similar tradition among the Tsimshian Indians of the Northwest coastal region:

"Two brothers, Kumsla'aqs and Siaxum, go out in their canoe to hunt birds. The second brother is sent to get water; and when he returns, they notice that the sun is low. They shoot their arrows at the sky, form a chain, and shake it. The elder brother climbs up, and

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<sup>121</sup> F. Boas, "Tsimshian Mythology," *ARBAE* 31 (1916), p. 866.

when he reaches the sky shakes the chain. Then the younger brother follows. Up above they meet the Sun, who at first is angry, but then welcomes them.”<sup>122</sup>

A Zuni tradition makes the ascent to heaven occur in the context of a great war. There the ascending hero is identified with the “Morning Star”:

“Morning Star, looking on, saw that they were losing the battle. He called to his younger brother and said, ‘Let us go to our sun father and see if he can tell us how to help our friends.’ They took corn meal and turquoise and put it upon their arrows. They shot toward the sun making a road to the sun of the dust. They climbed this.”<sup>123</sup>

Here the arrow-chain is described as a “road to the sun,” a phrase which naturally recalls the aforementioned traditions describing the World Tree as the “road to the sky.” Indeed, peoples around the globe claimed that there formerly existed a “road” in heaven that led to a sacred kingdom centered on the sun.<sup>124</sup> A prime example of this motif appears in “The Gilgamesh Epic,” wherein the Sumerian strongman is said to have followed the “road of Shamash” during his ill-fated attempt to obtain the plant of life.

The idea that the ancient sun-god was formerly associated with a ladder-like structure is surprisingly widespread. With regards to the structure depicted in figure one, the anthropologist Robert Zingg quotes a native Huichol informant to the effect that it “represented the ladder on which the Sun-father came out of the sea when he was born.”<sup>125</sup>

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<sup>122</sup> *Ibid.*, p. 865.

<sup>123</sup> A. Risser, “Seven Zuni Folk Tales,” *El Palacio* 48 (1941), p. 224.

<sup>124</sup> A. Carnoy, “Iranian Views of Origins,” *Journal of American Oriental Society* 36 (1916), p. 307 writes: “The same ideas are found in the Vedas, and both for the Iranians and Indians there corresponds to the path of the sun the path that man has to follow if he is to reach a successful end.”

<sup>125</sup> R. Zingg, *The Huichols: Primitive Artists* (New York, 1938), p. 595.





**Figure one**

This Huichol tradition finds a striking parallel in ancient Mesopotamia. There, too, a luminous “staircase” or ladder is mentioned in connection with the ancient sun-god’s epiphany. Witness the following Akkadian hymn:

“Íamaß, you have opened the bolts of the doors of heaven. You have ascended the staircase of pure lapis lazuli.”<sup>126</sup>

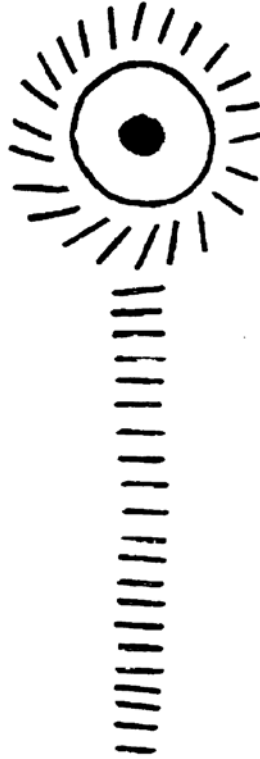
The current Sun, needless to say, does not appear in conjunction with a luminous staircase—hence the conundrum presented by such traditions, attested in the New World and Old World alike.

In order to understand the mythological traditions of a ladder associated with the ancient sun-god it is instructive to consider the testimony from ancient rock art. Consider the image from prehistoric California depicted in figure two: Here a ladder-like form extends downwards from a so-called sun image. Inasmuch as this image has no obvious reference in the current skies, scholars might be inclined to overlook its possible relevance to the mythological motif under discussion here. Yet once consider the possibility, however remote, that this image commemorates a former configuration in the

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<sup>126</sup> W. Heimpel, “The Sun at Night and the Doors of Heaven,” *Journal of Cuneiform Studies* 28:2 (1986), p. 133.

sky—one centered on the ancient “sun”—and it is obvious that it illuminates the universal belief in a ladder-to-heaven. If such a configuration was once prominent in the sky, can there be any doubt but that traditions of a ladder leading to the sun would be sure to follow?



**Figure two**

Far from being confined to the New World, similar images will be found around the globe. Witness the petroglyphs depicted in figure three. In this scene, carved into a rock face in Yorkshire England, the ladder-like “suns” seem to predominate. Particularly notable is the fact that the English “suns,” like their Californian counterpart, are represented as a circle or disk with a dark dot in the middle. This fact, properly interpreted, suggests that the “sun” in question is not to be confused with the current solar orb (see below).



**Figure three**

As it turns out, analogous images will be found around the world, being especially common in prehistoric contexts. Yet such artworks have received virtually no attention from students of ancient myth, this despite the fact that they offer a remarkable complement to the aforementioned traditions surrounding the ladder-to-heaven. Indeed, it is our contention that such scenes—however they are to be understood from an astronomical standpoint—represent surprisingly accurate depictions of the ancient sky, a deduction bolstered by the fact that the rock art of different continents betrays amazing correspondences.

The extraordinary profusion of ladder-like forms in prehistoric rock art points to the conclusion that the mythical ladder-to-heaven had reference to a perfectly visible celestial structure, albeit one that has long since disappeared from the polar heavens. This naturally begs the question: How are we to understand this “polar configuration” from an astronomical standpoint?

### The Polar Configuration

“That so many ancient peoples should believe that a high mountain (or sometimes a giant tree) should be a point of access from the earth to heaven is natural—mountains reach up into the sky.”<sup>127</sup>

In *Worlds in Collision* and other writings, Immanuel Velikovsky argued that the planets only recently settled into their current orbits and that Venus, Mars, and Saturn were involved in spectacular cataclysms witnessed the world over. In that provocative and highly controversial book, Velikovsky suggested that widely recurring mythical images such as the warrior-hero, witch, and fire-breathing dragon originated in pre-scientific descriptions of terrifying cataclysms involving planetary agents.

It was while researching *Worlds in Collision* that Velikovsky deduced that the planet Saturn occupied a prominent place in ancient mythology, a situation difficult to reconcile with its present modest appearance. This claim was to receive substantial support from the wide-ranging researches of Giorgio de Santillana and Hertha von Dechend, who likewise found the ringed-planet to be a major player in ancient mythology and religion.<sup>128</sup> Although the authors of *Hamlet's Mill* favored a uniformitarian explanation of Saturn's mythological status—they would explain the cataclysmic imagery in ancient myth as a reflection of the ancients' preoccupation with precession of the equinoxes—Velikovsky sought to account for Saturn's role by speculating that the Earth had once stood in close proximity to the gas giant. In fact, Velikovsky went so far as to hypothesize that the Earth had been a satellite of Saturn's in relatively recent times (within the last 10,000 years and thus well within the memory of man), with Saturn dominating the skies in sun-like fashion.<sup>129</sup>

De Santillana and von Dechend drew attention to a singular mystery surrounding Saturn—its intimate connection with the North Pole. In China, for example, Saturn was

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<sup>127</sup> S. Allan, *The Shape of the Turtle* (Albany, 1991), p. 100.

<sup>128</sup> *Hamlet's Mill* (Boston, 1969).

<sup>129</sup> I. Velikovsky, *Mankind in Amnesia* (New York, 1982), pp. 97-100.

known as the “Genie of the Pivot,” a name otherwise applied to the Pole Star.<sup>130</sup> Similar conceptions seem to have prevailed among the Iranian skywatchers, who associated Kevan/Saturn with the Pole.<sup>131</sup> Puzzled by such traditions, the authors of *Hamlet’s Mill* asked: “What has far-out Saturn to do with the Pole?”<sup>132</sup>

This mystery is directly linked to another, equally baffling: Throughout the ancient world, there is a consistent association of the ancient sun-god with the Pole. Thus, the sacred traditions of various cultures tell of a time when the sun stood motionless in the middle of heaven, a telltale sign of a polar sun. The *Popol Vuh*, lauded as the “Mayan Bible,” alludes to a former period wherein a stationary “sun” prevailed. Indeed, the primeval sun is explicitly distinguished from the current solar orb:

“Like a man was the sun when it showed itself...It showed itself when it was born and remained fixed in the sky like a mirror. Certainly it was not the same sun which we see, it is said in their old tales.”<sup>133</sup>

This Quiche tradition, like others quoted in previous chapters, clearly describes a primeval sky that is radically different in order and appearance than the sky familiar to modern astronomers. Only a polar sun could remain “fixed in the sky.”

This idea is also attested in ancient Egypt. Thus, the Coffin Texts report that the ancient sun-god stood “fixed in the middle of the sky.”<sup>134</sup> Far from being confined to ancient Egypt, the idea that the “sun” formerly resided at the Pole is also prominent in India. From his extensive researches into the archetypal symbols of ancient myth, E.A.S. Butterworth concluded:

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<sup>130</sup> G. de Santillana & H. von Dechend, *op. cit.*, p. 136. See also J. Major, “Myth and Origins of Chinese Science,” *Journal of Chinese Philosophy* 5 (1978), p. 5.

<sup>131</sup> D. Talbott, *The Saturn Myth* (New York, 1980), p. 143.

<sup>132</sup> *Hamlet’s Mill* (Boston, 1969), p. 136.

<sup>133</sup> D. Goetz & S. Morley, *Popol Vuh* (Norman, 1972), p. 188.

<sup>134</sup> R. Rundle Clark, *Myth and Symbol in Ancient Egypt* (London, 1959), p. 59, translates as follows: “The Great God lives, fixed in the middle of the sky upon his support.” See the discussion in E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 167-177.

“[The primeval sun] is not the natural sun of heaven, for it neither rises nor sets, but is, as it seems, ever in the zenith above the navel of the world. There are signs of an ambiguity between the pole star and the sun.”<sup>135</sup>

Summarizing his findings, Butterworth emphasized the following passage from the *Chandogya Upanishad*:

“Henceforth, after having risen in the zenith, he (the Sun) will no more rise or set. He will stand alone in the middle.”<sup>136</sup>

Ananda Coomaraswamy, a leading scholar of Hindu symbolism, discovered the same peculiar relationship between the ancient sun and the Pole in Vedic sources. With apparent disregard for the astronomical difficulties posed by this finding, Coomaraswamy remarked: “It must not be overlooked that the polar and solar symbolisms are almost inseparably combined in the Vedic tradition.”<sup>137</sup>

We have already cited a tradition of a stationary sun from South America. Thus the Makiritare describe the primeval time of the gods as follows:

“In the highest Sky was Wanadi, just like now. He gave his light to the people, to the Kahuhana...Because of that light, the people were always happy. They had life. They couldn’t die. There was no separation between Sky and Earth...Wanadi is like a sun that never sets. It was always day. The Earth was like a part of the sky.”<sup>138</sup>

Analogous traditions were preserved by the Aboriginal cultures of Australia. The natives of Victoria, for example, describe the primeval sun as follows:

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<sup>135</sup> E. Butterworth, *The Tree at the Navel of the Earth* (Berlin, 1970), p. 124.

<sup>136</sup> *Ibid.*, p. 125 with reference to III.II.1-3.

<sup>137</sup> “Svayamatrnnna: Janua Coeli,” in R. Lipsey ed., *Coomaraswamy: Selected Papers* (Princeton, 1977), p. 484.

<sup>138</sup> M. de Civrieux, *Watunna: An Orinoco Creation Cycle* (San Francisco, 1980), p. 21.

“At the beginning the sun did not set. It was at all times day.”<sup>139</sup>

The first scholars to conduct a cross-cultural analysis of the “polar” sun traditions were David Talbott and Dwardu Cardona.<sup>140</sup> Inspired by Velikovsky’s general thesis of planetary catastrophism and a brief outline of his ideas regarding the possibility that Earth might have been a satellite of Saturn’s in prehistoric times, Talbott conducted a systematic investigation of the ringed planet’s role in ancient myth and religion. He discovered that the idea of the ancient sun-god located at the Pole was surprisingly widespread. The question was how to explain it?

According to Talbott’s reconstruction, the Earth once moved in close proximity to Saturn, apparently sharing a common axis of rotation, with the result that Saturn appeared fixed in the north polar sky as a gargantuan, awe-inspiring form. Hence the historical and logical rationale behind Saturn’s reputation as a “polar sun.”

A measure of support for Talbott’s hypothesis comes from the fact that the Akkadian name for the planet Saturn—*Kaiamānu*—is derived from a root *kānu*, signifying “to be firmly in place/to be stationary.”<sup>141</sup> Why this particular planet would be described as “stationary” is far from obvious given its present behavior. Archaeoastronomers would have us believe that the name has reference to Saturn’s slow and steady progress throughout the heavens. But a slow and steady planet is not to be confused with a stationary one. Saturn’s explicit identification with Shamash, the ancient sun god, suggests a more probable explanation of the name: *Kaiamānu* commemorates Saturn’s former role as a polar—and thus “stationary”—sun above the North Pole.

There is a wealth of evidence that Venus and Mars also participated in the polar configuration associated with Saturn. According to the reconstruction offered by Talbott

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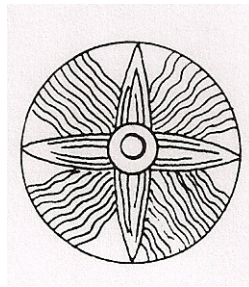
<sup>139</sup> R. Smyth, *The Aborigines of Victoria, Vol. 1* (London, 1878), p. 430.

<sup>140</sup> D. Talbott, *The Saturn Myth* (New York, 1980). D. Cardona, “The Sun of Night,” *Kronos* 3:1 (1977), pp. 31-38; “The Mystery of the Pleiades,” *Kronos* 3:4 (1978), pp. 24-44.

<sup>141</sup> D. Brown, *Mesopotamian Planetary Astronomy-Astrology* (Groningen, 2000), pp. 68-69.

and myself, the planets Mars and Venus originally appeared in close proximity to Saturn, sharing a common axis of rotation together with the Earth. As the Earth-bound observer looked upwards, he saw a spectacular image—Saturn dominating the sky, with the much smaller Venus and Mars set within it like two concentric circles (see the illustration on the back cover).

It is our view that ancient images of the Shamash-disc, such as the one depicted in figure four, faithfully depict the polar configuration as it appeared during one particularly memorable phase in its evolutionary history. Shamash/Saturn appeared to have a central “eye,” the latter actually consisting of Venus and Mars in conjunction.



**Figure four**

As the planetary configuration evolved through time, the respective planets became subject to displacement along and about the polar axis. The ebb and flow in the positions of the various planets provided a primary source of inspiration for the world’s vast corpus of mythological themes and ultimately constitutes a vital chapter in the history of the gods.

A particularly spectacular phase in the configuration’s history saw a series of streamers or “rays” emanate out from Venus and across the disc of Saturn, thereby presenting a “star-like” appearance (see figure five). For an indeterminate period of time, Venus presented eight streamers. At other times, four streamers were prominent, thereby presenting a cross-like apparition.





**Figure five**

But what of the pillar-like appendage associated with various prehistoric “sun-images?” As we have argued elsewhere, myths of a World Pillar or *axis mundi* commemorate a specific phase in the history of the polar configuration, one intimately related to the separation of heaven and earth and the mythical “birth” of the warrior-hero (Mars).<sup>142</sup> This spectacular sequence of events saw Mars move closer towards Earth along the shared polar axis, and thus it became removed from the center of Venus. The red planet eventually assumed a position visually beneath Saturn’s massive disc. As Mars descended from Saturn/Venus, it grew larger in form. At the same time a cloud of luminous material became spread out between Mars and Earth, thereby giving rise to the appearance of a fiery pillar spanning the heavens.

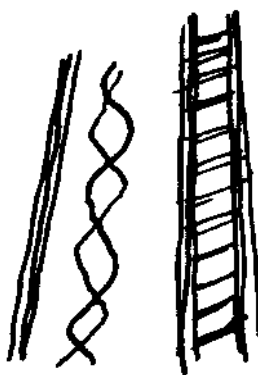
The luminous pillar associated with the polar configuration was a dynamic phenomenon, alternately presenting a variety of forms, the latter an apparent result of an evolving plasma-generated structure (plasmas are defined as “quasi-neutral assemblies of charged particles”<sup>143</sup>—of which familiar examples include the solar wind, lightning, and auroras, the latter produced when the solar wind plasmas filter through the Earth’s atmosphere,

<sup>142</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 97-101.

<sup>143</sup> P. Sturrock, *Plasma Physics* (Cambridge, 1994), p. 6.

interacting with and exciting the molecules in the upper atmosphere.<sup>144</sup>) During one particularly memorable phase the plasma column stood erect like a giant pillar—a veritable *universalis columna*. Yet during other phases it took on a helical or zigzagging form, resembling a giant rope or vine. The undulating rope-like form, in turn, seems to have morphed into a double-helix or chain-like structure, thereby inspiring traditions of a colossal ladder spanning heaven.

As is evident from our survey of ancient myth, there is reason to believe that the prehistoric skywatchers understood that the ladder-to-heaven, arrow-chain, and celestial rope were related morphologically—hence the various statements to the effect that the chain of arrows morphed into a “rope” leading to heaven. That the respective celestial structures were fundamentally analogous is also suggested by ancient rock art. Witness the juxtaposition of images in an early artwork from prehistoric California depicted in figure six: here a helical form is placed alongside a ladder-like form. It is as if the ancient artist was trying to convey the idea that these particular forms were variations upon a common structural prototype.

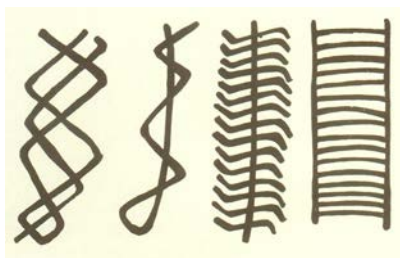


**Figure six**

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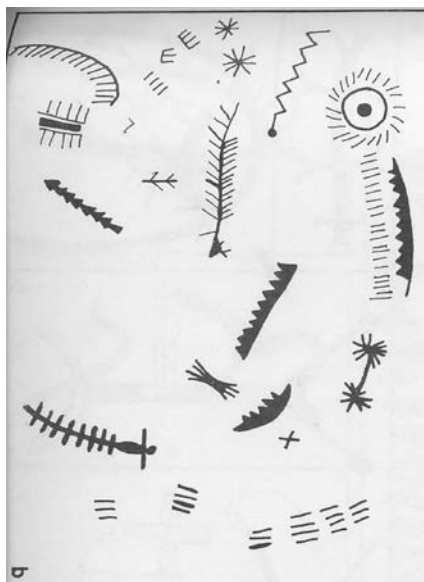
<sup>144</sup> *Ibid.*, p. 2.

A similar juxtaposition of images occurs in the sacred art of the Desana from the Amazonian rain forest.<sup>145</sup> Thus, in the artwork depicted in figure seven helical forms are set alongside ladder-like structures.



**Figure seven**

Particularly noteworthy are the forms illustrated on the rock face depicted in figure eight, whence we drew our figure two.<sup>146</sup> Here the solar ladder is placed alongside other ladder-like structures and arrow-chains. The celestial context of the imagery in question is evident at once.

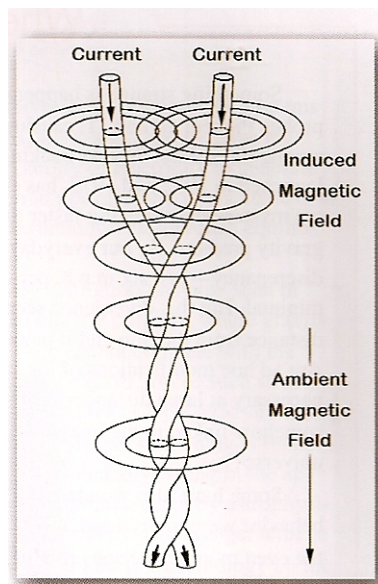


**Figure eight**

<sup>145</sup> Adapted from G. Reichel-Dolmatoff, *Amazonian Cosmos* (Chicago, 1971), p. 158.

<sup>146</sup> R. Heitzer & C. Clewlow, *Prehistoric Rock Art of California, Vol. 2* (Ramona, 1973), figure 253.

The fact that such forms are consistent with what we know about the evolution of plasma structures in the laboratory is of paramount importance for a proper understanding of Earth's history. Only recently, in fact, a pioneer in the field of plasma physics—Anthony Peratt—published a groundbreaking article demonstrating an astonishing accord between ladder-like forms in ancient rock art and plasma structures produced in high-energy-density experiments.<sup>147</sup> Briefly, Peratt produced a Z-pinch effect by applying high-voltage pulses to gas-puffs in order to simulate an aurora-like plasma inflow.<sup>148</sup> The well-known effects of a Z-pinch include the generation of Birkeland currents (see figure nine) and the development of toroidal forms along the polar axis. With a sufficient increase in current the toroids tend to flatten out, thereby presenting the appearance of “rungs” or “steps.”



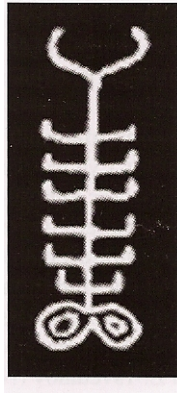
**Figure nine**

<sup>147</sup> A. Peratt, “Characteristics for the Occurrence of a High-Current, Z-Pinch Aurora as Recorded in Antiquity,” *IEEE Transactions on Plasma Science* 31:6 (2003), pp. 1192-1214.

<sup>148</sup> *Ibid.*, p. 1194. Peratt used wire arrays to simulate filamentation dynamics and concentric plasma sheets formed by nested cylindrical foils to produce high velocity shock waves.

Figure ten, adapted from Peratt's article, offers an example of the peculiar ladder-like structures found in early petroglyphs. Comparing this form with those structures generated by high-energy-density experiments, Peratt noted a striking correspondence:

"The petroglyph carvers have managed to capture all of the phases of the Z-pinch instability seen in the laboratory. These phases include the ladder and enclosed ellipsoidal top-most toroids."<sup>149</sup>



**Figure ten**

With an additional increase of current, the toroids begin to curl inwards, displaying branch-like forms. Here, too, ancient artists around the globe recorded the curling of the "rungs" or "branches" in their petroglyphs (see figure eleven and eight).



**Figure eleven**

Upon finding a correspondence that extended to the finest structural details, Peratt was forced to consider the possibility that certain recurring images in prehistoric rock art constituted remarkably accurate recordings of spectacular auroral effects:

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<sup>149</sup> *Ibid.*, p. 1202.

“Perhaps the most important feature depicted in the petroglyph shown in Figure 27 is the curling of the edges of the flat-bottomed toroids. This feature is exact enough so that a time-motion representation of the curling can be made and directly compared to its experimental counterpart...Figure 28 [figure ten here] provides the first direct evidence of the exactness to which petroglyphs were carved in spite of cultural influences in interpretation. The ladder rungs (stacked medium current toroids) are shown to fold and bend as do the laboratory photographs. Subtle changes in the petroglyphs corresponding to the plasma instability morphologies have been reproduced with precise accuracy, even including, in proper order, the admixture of toroid types.

In all cases, the top-most toroid, the terminus in an electrical discharge, is indeed at the top of the petroglyphs and shows the transition of the pincher type shape associated with so-called scorpion petroglyphs into a folded petal as the top toroids fold up and close on themselves.”<sup>150</sup>

Peratt’s analysis is breathtaking in its implications. If he is right, prehistoric man recorded the recent history of the solar system as it unfolded and with great attention to detail. To quote from Peratt’s conclusion:

“A discovery that the basic petroglyph morphologies are the same as those recorded in extremely high-energy-density discharges has opened up a means to unravel the origin of these apparently crude, misdrawn, and jumbled figures found in uncounted numbers around the Earth...Many petroglyphs, apparently recorded several millennia ago, have a plasma discharge or instability counterpart, some on a one-to-one or overlay basis. More striking is that the images recorded on rock are the only images found in extreme energy density experiments; no other morphology types or patterns are observed.”<sup>151</sup>

It should be obvious that Peratt’s findings are of fundamental importance with regard to the age-old quest to elucidate the origin and *raison d’être* of ancient myth and

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<sup>150</sup> *Ibid.*

<sup>151</sup> *Ibid.*, p. 1210.

symbolism. If the luminous column uniting the various planets participating in the polar configuration consisted of Birkeland currents, it stands to reason that the ancient mythmakers might compare the ladder-to-heaven with a “rope,” inasmuch as such currents routinely present the appearance of rope-like forms, the individual filaments presenting a *braided* structure.<sup>152</sup> How fitting, then, to find that the Yarralin from Australia claimed the primeval ascent to heaven took place by means of “lightning strings.”<sup>153</sup> This tradition finds a remarkable parallel amongst the Pima of the American Southwest, who compared the ladder-to-heaven to zigzagging lightning.<sup>154</sup>

If the *axis mundi* was indeed a plasma-based phenomenon, it stands to reason that it might be compared to a living structure or “flesh,” since plasmas often produce self-generated and evolving forms (Irving Langmuir chose the word plasma to describe such electro-magnetic phenomena *precisely because* they closely imitated organic forms and processes). The *cosmic umbilicus* uniting heaven and earth, in this sense, resembled a “living rope,” as reported by the Maya and other aboriginal peoples.

The World Tree, likened to the “flesh of the gods” by the scribes of ancient Mesopotamia, finds a striking analogue in the recent discovery of the unique (and *characteristic*) behavior of plasma-generated structures. As the “rungs” or “arms” of the ladder curl upwards the result is a tree-like image.<sup>155</sup> Thus it is that countless mythical images, long since considered surreal or fantastic in nature and hardly suitable for scientific analysis, find immediate clarification courtesy of Peratt’s elegant experiments and theoretical formulations. In fact, it now appears probable that Peratt’s findings stand to revolutionize our ability to understand, model, and reconstruct the recent history of the solar system.

Armed with this brief overview of the Saturn theory, it is possible to understand why the ladder to heaven was viewed as a “road” leading to the home of the ancient sun-god. In

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<sup>152</sup> See figure six in *Ibid.*, p. 1194.

<sup>153</sup> D. Johnson, *Night Skies of Aboriginal Australia* (Sydney, 1998), p. 14.

<sup>154</sup> F. Russell, *The Pima Indians* (Washington, 1908), p. 339.

<sup>155</sup> See figure 28 in T. Peratt, *op. cit.*, p. 1203.

primeval times there really was a luminous ladder spanning the heavens that, if followed, would lead to the sun (Saturn). We can also understand why Venus was said to reside together with the ancient sun-god atop the celestial ladder (as in the Tsimshian tradition quoted earlier), for this report accurately describes the relationship which formerly prevailed between Saturn and Venus during the period distinguished by the polar configuration. Mars, finally, thanks to its propensity for alternately approaching first Venus and then Earth, appeared to periodically ascend and descend the polar axis, thereby giving rise to its mythological reputation as a ladder-climber. Inasmuch as Mars' climbing the *axis mundi* actually involved its removal from the immediate vicinity of the Earth, it stands to reason that it would gradually diminish in size as it ascended the *columna universalis*. Hence we would understand the report that Nergal/Mars "shrank" as it climbed the celestial staircase.

It is our contention that the widespread mythological traditions crediting the planet Mars with ascending a ladder-to-heaven will never be explained by reference to the familiar skies. To state the obvious: Where are we to find a celestial ladder leading to the home of the ancient sun-god? In what sense can the current Sun be said to live at the zenith of the sky atop a mountain together with the planet Venus? And even if an astronomer can be found who would offer a new explanation for the celestial ladder, it would still be necessary to explain how and why Mars should be consistently identified as the celestial body most prone to ascending the ladder. Here it is the very specificity *and* detailed nature of the various themes uniting Mars to the celestial stairway that pose seemingly insurmountable problems for the conventional understanding of the solar system's recent history. It is our opinion, in fact, that these peculiar traditions surrounding Mars support the conclusion that they were originally inspired by the *witnessed* appearance and behavior of the red planet, albeit in a solar system differently ordered than at present.



### 3. Creation Amongst the Skidi Pawnee

“No other primitive people has such an extensive and accurate record of its myths, tales, and legends as the North American Indian.”<sup>156</sup>

How and when the Americas were first settled is lost in the mists of prehistory and remains a matter of controversy and rampant speculation. Whether the earliest inhabitants trekked across the Bering land-bridge which once connected Siberia with western North America, or whether they came in waves by way of rafts and canoes, will not concern us here. What is certain is that sometime after their arrival from distant continents, the ancestors of the so-called Indians quickly set about exploring and expanding into the furthest outreaches of North and South America. Some, like those who settled along the Northwest coast of Canada and North America, adopted a relatively sedentary lifestyle marked by fishing and farming. Others, like the Plains Indians, eventually pursued a more nomadic lifestyle, following the buffalo herds wherever they might lead them.

Among the tribes that Lewis and Clark encountered during their remarkable journey across the heartland of North America were the Skidi Pawnee, who had settled along the Loup river in what is now central Nebraska. The Skidi made their living hunting buffalo, raising corn, and raiding their neighbors.<sup>157</sup>

The Skidi comprise one of the four major bands of the Pawnee and are thought to have immigrated to the Mid-western plains from the South, perhaps preserving religious beliefs otherwise characteristic of the cultures of Mesoamerica and the American Southwest. They speak a Caddoan language.

At the time of their first encounter with Europeans—Spanish and French trappers—the tribe is thought to have numbered around 10,000. Within one century after the visit by

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<sup>156</sup> S. Thompson, *Tales of the North American Indians* (Bloomington, 1966), p. xvi.

<sup>157</sup> For a general overview of their history, see B. Pritzker, *A Native American Encyclopedia* (Oxford, 2000), pp. 350-352.

Lewis and Clark, the Skidi were reduced to some 600 individuals living on the brink of starvation and extinction.

The Skidi were inveterate sky-watchers. Indeed, it has been said that they were “obsessed with the planets”<sup>158</sup> and had “a sky oriented theology perhaps without parallel in human history.”<sup>159</sup>

The planet Venus was conceptualized as a Star Woman by the name of *cu-piritta-ka*, which translates literally as “female white star.”<sup>160</sup> The anthropologist James Murie, himself of Skidi blood, summarized the lore surrounding this planet as follows:

“The second god Tirawahat placed in the heavens was Evening Star, known to the white people as Venus...She was a beautiful woman. By speaking and waving her hands she could perform wonders. Through this star and Morning Star all things were created. She is the mother of the Skiri [Skidi]. Through her it is possible for people to increase and crops to mature.”<sup>161</sup>

It is to be noted that the planet Venus was explicitly distinguished from the “Morning Star.” In fact, the Skidi identified the mythical “Morning Star” with the planet Mars, the latter envisaged as a powerful warrior of irascible disposition. Murie offered the following summary of the sacred traditions surrounding the Morning Star:

“The first one he placed in the heavens was the morning star...This being was to stand on a hot bed of flint. He was to be dressed like a warrior and painted all over with red dust. His head was to be decked with soft down and he was to carry a war club. He was not a

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<sup>158</sup> V. Del Chamberlain, *When Stars Came Down to Earth* (College Park, 1982), p. 82.

<sup>159</sup> *Ibid.*, p. 29.

<sup>160</sup> J. Murie, “Ceremonies of the Pawnee,” *Smithsonian Contributions to Anthropology* 27 (Cambridge, 1981), p. 39.

<sup>161</sup> *Ibid.*

chief, but a warrior....He was also to be the one great power on the east side of the Milky Way. This is Mars, *u-pirikucu?* (literally, 'big star'), or the god of war."<sup>162</sup>

Like numerous other indigenous cultures, the Skidi traced their origins to events involving the respective planets. The central act of Skidi cosmogony described the Martian warrior's pursuit and eventual conquest of the planet Venus. Creation itself unfolded as a direct result of their sexual union. In summarizing the events in question, Ralph Linton stated simply "The Morning Star married the Evening Star."<sup>163</sup>

The *hieros gamos* between Mars and Venus was ritually reenacted during especially sacred celebrations. On rare occasions, or in the face of some perceived threat—the appearance of a meteor, an epidemic, or some other portent—the Pawnee offered a human sacrifice to the Morning Star, usually in the years when Mars appeared as a morning star.<sup>164</sup> Here a band of warriors would accompany a man impersonating the Morning Star in raiding a neighboring campsite, where they sought to kidnap a young woman of choice. Along the way there was much singing and dancing, during which the heroic deeds of the Martian warrior were recounted and celebrated. Upon capturing a suitable victim, the war party returned to the Skidi village where several months might elapse while the priests prepared for the sacrifice and awaited signs for the most propitious time. The culmination of the rite saw the young woman—representing Venus—being painted head to toe and outfitted with a curious fan-shaped headdress.<sup>165</sup> The victim was then led to a scaffold specially erected for the occasion whereupon, after mounting the final rung, she was shot in the heart by an arrow from the bow of the man impersonating Morning Star. The priests in charge of the gruesome rite took great care to ensure that the girl's blood was directed to a cavity below the scaffold. This pit was lined

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<sup>162</sup> *Ibid.*, p. 38.

<sup>163</sup> R. Linton, "The Sacrifice to Morning Star by the Skidi Pawnee," *Leaflet Field Museum of Natural History, Department of Anthropology* 6 (1923), p. 5

<sup>164</sup> R. Linton, "The Origin of the Skidi Pawnee Sacrifice to the Morning Star," *American Anthropologist* 28 (1928), p. 457. See also the detailed analysis by Von Del Chamberlain, *When Stars Came Down to Earth* (College Park, 1982).

<sup>165</sup> See the photo on page 190 of E. Krupp, *Beyond the Blue Horizon* (New York, 1991).

with white feathers and was held to represent the sacred garden of the planet-goddess: “The pit symbolized the Garden of the Evening Star from which all life originates.”<sup>166</sup>

In the Pawnee village, successful completion of the sacrifice was greeted with great rejoicing and a period of “ceremonial sexual license to promote fertility.”<sup>167</sup>

As bizarre as this rite appears to the modern reader, anthropologists are generally agreed as to its fundamental purpose—to commemorate the sacred events of Creation. Ralph Linton’s comments on the ritual are representative in this regard:

“The sacrifice as a whole must be considered as a dramatization of the overcoming of the Evening Star by the Morning Star and their subsequent connection, from which sprang all life on earth. The girl upon the scaffold seems to have been conceived of as a personification or embodiment of the Evening Star surrounded by her powers. When she was overcome, the life of the earth was renewed, insuring universal fertility and increase.”<sup>168</sup>

The Skidi traditions with respect to Venus and Mars raise a number of intriguing questions. How are we to explain the origin of such peculiar ideas and practices? The simplest explanation, as well as the most logical, is to trace the mythological traditions to objective events involving Venus and Mars. We would thus endorse the opinion expressed by the astronomer Ray Williamson: “The care with which the Pawnee observed the sky and noted the celestial events suggests that the story of Morning Star and Evening Star, in addition to serving as an explanation of the original events of the Pawnee universe, might also reflect actual celestial occurrences.”<sup>169</sup>

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<sup>166</sup> G. Weltfish, *The Lost Universe* (New York, 1965), p. 112.

<sup>167</sup> *Ibid.*, p. 114.

<sup>168</sup> R. Linton, “The Sacrifice to Morning Star by the Skidi Pawnee,” *Leaflet Field Museum of Natural History, Department of Anthropology* 6 (1923), p. 17.

<sup>169</sup> R. Williamson, *Living the Sky* (Norman, 1984), p. 225.

It was the astronomer Von Del Chamberlain who conducted the most extensive investigation into the historical basis of the Skidi traditions.<sup>170</sup> He, too, concluded that astronomical events inspired the sacred traditions in question: “The conjunctions of Venus and Mars do seem to be the key to the Skidi concept of celestial parentage.”<sup>171</sup> As for how these “conjunctions” were to be understood from an astronomical standpoint, Von Del Chamberlain opined that they had reference to Mars’ periodic migration from the morning sky to the western evening sky whereupon, on very rare occasions, it would conjoin with Venus. Other astronomers have since endorsed Chamberlain’s interpretation.<sup>172</sup>

Granted that “actual celestial occurrences” are encoded in the Skidi myth of Creation, it remains far from obvious how we are to understand the origin of the specific motifs surrounding the respective planets given Von Del Chamberlain’s theory. Why was Venus conceptualized as the prototypical female power? Why was Mars viewed as masculine in nature or identified as Morning Star? Why would the periodic, relatively mundane, conjunction of these two particular planets be linked to Creation and ideas of universal fertility? Not one of these questions finds a satisfactory explanation under the thesis advanced by Von Del Chamberlain.

Perhaps the most important question facing students of ancient myth is the following: Do the Skidi myths with respect to Venus and Mars have an historical or observational basis? Stated another way: Are the sacred traditions in question to be understood as reliable memories regarding the recent history of the solar system, or are they a product of creative storytelling and thus unique to that particular culture?

In order to determine whether the Skidi astral traditions represent reliable memories regarding Venus and Mars (and of Creation), it is instructive to perform a cross-cultural analysis of astral lore. If the Skidi traditions have a rational foundation in actual

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<sup>170</sup> V. Del Chamberlain, *When Stars Came Down to Earth* (College Park, 1982).

<sup>171</sup> *Ibid.*, p. 84.

<sup>172</sup> E. Krupp, *Beyond the Blue Horizon* (New York, 1991), pp. 189-192.

historical events, they must find corroboration elsewhere. If, on the other hand, they are to be understood as fictional in nature or of relatively recent origin, it stands to reason that it would be most unlikely that cultures from the Old World would relate similar stories about the respective planets (that is, of course, unless they were directly influenced by Skidi beliefs). Yet if Old World cultures preserved myths and rites analogous to those from aboriginal North America, this finding would constitute compelling evidence for the thesis defended here, which holds that the Amerindian mythological traditions surrounding Venus and Mars encode and describe observed astronomical events.

The astronomical lore from ancient Mesopotamia offers a perfect case study in this regard inasmuch as it constitutes the earliest and most extensive body of traditions about the respective planets.

#### 4. Inanna: Queen of Heaven

“If we survey the whole of the evidence on this subject...we may conclude that a great Mother Goddess, the personification of all the reproductive energies of nature, was worshipped under different names but with a substantial similarity of myth and ritual by many peoples of Western Asia; that associated with her was a lover, or rather series of lovers, divine yet mortal, with whom she mated year by year, their commerce being deemed essential to the propagation of animals and plants, each in their several kind; and further, that the fabulous union of the divine pair was simulated and, as it were, multiplied on earth by the real, though temporary, union of the human sexes at the sanctuary of the goddess for the sake of thereby ensuring the fruitfulness of the ground and the increase of man and beast.”<sup>173</sup>

The science of astronomy owes its origin to skywatchers and diviners in ancient Mesopotamia, and thus the practice of observing the respective planets had a long history in that region. What, then, do we know about the mythological traditions surrounding Venus and Mars in the ancient Near East?

Veneration of the planet Venus under the guise of the goddess Inanna is ubiquitous in the earliest temples yet excavated in Mesopotamia. At Uruk, the oldest urban site in the entire Near East, offerings to Inanna/Venus far outnumber those of any other deity.<sup>174</sup> In strata conventionally dated to ca. 3000 BCE (Uruk IV-III), Inanna is already associated with various symbols that would become conspicuous in her later cult (the eight-pointed star and rosette, for example).

The Sumerian cult of Inanna, upon being assimilated with that of the Semitic goddess Ishtar, would dominate the religious landscape of Mesopotamia for over two thousand years. As our earliest historical testimony documenting the worship of the planet Venus, the literature surrounding Inanna and Ishtar must figure prominently in any discussion of astral myth.

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<sup>173</sup> J. Frazer, *Adonis, Attis, Osiris* (New Hyde Park, 1961), p. 39.

<sup>174</sup> K. Szarzynska, “Offerings for the goddess Inana,” *Revue d’assyriologie et d’archéologie orientale* 87 (1993), p. 7.

The oldest extant literary texts from Mesopotamia date from the Early Old Babylonian period (ca. 2000-1800 BCE).<sup>175</sup> It is commonly believed that such texts were preserved orally for numerous generations and thus represent archetypal traditions about the Sumerian gods. Indeed, Szarzynska holds it probable that this sacred literature includes some very ancient ideas, perhaps reflecting “archaic Sumerian tradition.”<sup>176</sup>

### The Sacred Marriage Rite

“The Babylonian paradigm for love and marriage was the relationship between Inanna and Dumuzi.”<sup>177</sup>

One of the most important celebrations in ancient Mesopotamia was the so-called sacred marriage rite, alleged to commemorate the sexual union of Inanna with Dumuzi.<sup>178</sup> Early texts confirm that the performance was believed to stimulate the growth of crops. Of untold antiquity—a vase recovered from the Protoliterate period at Uruk (ca. late 4<sup>th</sup> millennium BCE) is thought to depict the marriage of Inanna and Dumuzi<sup>179</sup>—the ritual appears to have died out after the Old Babylonian period.<sup>180</sup>

In the rite in question a “flowered bed” or “garden” would be prepared, whereupon the king would have intercourse with a woman representing Inanna.<sup>181</sup> Douglas Frayne offered the following summary of the rite:

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<sup>175</sup> J. Hayes, *A Manual of Sumerian Grammar and Texts* (Malibu, 2000), p. 394.

<sup>176</sup> K. Szarzynska, *Sumerica* (Warsaw, 1997), p. 148.

<sup>177</sup> W. Heimpel, “Mythologie, A. I,” *Reallexikon der Assyriologie*, Vol. 8 (Berlin, 1993-1997), p. 547.

<sup>178</sup> E. van Buren, “The Sacred Marriage in Early Times in Mesopotamia: Part I,” *Orientalia* 13 (1944), p. 1 states that “the very ancient rite of the sacred marriage was of the utmost importance, if not the essential and pivotal element of Babylonian religion.”

<sup>179</sup> H. Frankfort, *The Art and Architecture of the Ancient Orient* (1954), pp. 25-27. See also G. Selz, “Five Divine Ladies,” *NIN* 1 (2000), p. 31.

<sup>180</sup> R. Kutscher, “The Cult of Dumuzi/Tammuz,” in J. Klein ed., *Bar-Ilan Studies in Assyriology* (New York, 1990), p. 41. Although references to a sacred marriage rite are to be found in the letters of Esarhaddon and Assurbanipal, human beings no longer take an active role in consummating the marriage of the goddess and her consort. See also D. Frayne, “Notes on The Sacred Marriage Rite,” *Bibliotheca Orientalis* 42:1/2 (1985), cols. 11, 22.

<sup>181</sup> See here the discussion in D. Frayne, *op. cit.*, cols. 14, 21.



“It is clear that the central purpose of the Sacred Marriage Rite was to promote fertility in the land. The rationale of the ceremony was that by a kind of sympathetic act involving the sexual union of the king, playing the role of the *en* [typically personifying Dumuzi] with a woman, generally referred to simply as Inanna, the crops would come up abundantly and both the animal and human populations would have the desire and fertility to ensure that they would multiply.”<sup>182</sup>

The single most important source describing the rite is the marriage hymn of Iddin-Dagan, the third king of the First Dynasty of Isin (ca. 1974-1954 BCE). The text begins by invoking Inanna as the planet Venus. Excerpts from the hymn follow:

“I shall greet her who descends from above...I shall greet the great lady of heaven, Inana! I shall greet the holy torch who fills the heavens, the light, Inana, her who shines like the daylight, the great lady of heaven, Inana! I shall greet the Mistress, the most awesome lady among the Anuna gods; the respected one who fills heaven and earth with her huge brilliance...Her descending is that of a warrior.”<sup>183</sup>

In the ensuing lines of the hymn there are allusions to various offerings given to Inanna. After the goddess bathes herself, a bed is set up for her and the king to share. Properly prepared, the king—in the guise of Dumuzi—approaches the bed:

“On New Year’s day, the day of ritual, They set up a bed for my lady. They cleanse rushes with sweet-smelling cedar oil, They arrange them (the rushes) for my lady, for their (Inanna and the king) bed...My lady bathes (her) pure lap, She bathes for the lap of the king...The king approaches (her) pure lap proudly, Ama’uṣumgalanna lies down beside her, He caresses her pure lap...She makes love with him on her bed, (She says) to Iddin-Dagan: ‘You are surely my beloved.’...The palace is festive, the king is joyous,

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<sup>182</sup> *Ibid.*, col. 6.

<sup>183</sup> Lines 1-18 as quoted from “A *Ṣir-namursaga* to Inana for Iddin-Dagan,” in J. Black et al, *The Literature of Ancient Sumer* (Oxford, 2004), p. 263. See also D. Reisman, “Iddin-Dagan’s Sacred Marriage Hymn,” *Journal of Cuneiform Studies* 25 (1973), pp. 186-191.

The people spend the day in plenty. Ama'uṣumgalanna stands in great joy. May he spend long life on the radiant throne!"<sup>184</sup>

Ama'uṣumgalanna here is simply an epithet of Dumuzi, the paramour of the planet-goddess Inanna.

In ancient Mesopotamia, as elsewhere, the ritual *hieros gamos* formed a prominent feature of the New Year's celebrations. By all accounts it was a particularly joyous occasion, marked by a period of feasting and revelry following consummation of the royal marriage:

"The glad news of the successful accomplishment of the long rite having been communicated to the people who had been waiting in anxious expectation to learn the issue, there was an outburst of exultation and thanksgiving, followed by a great feast of which all partook, the newly-wedded pair, the visiting divinities, the whole multitude who, in gratitude for the fertility which was now assured, raised jubilant hymns to the sound of the lyre, flutes and drums."<sup>185</sup>

Even from this brief summary it must be admitted that the Sumerian beliefs surrounding Inanna/Venus offer striking parallels to the Skidi traditions regarding Venus. In addition to embodying the female principle, the planet is assigned a central role in a sacred *hieros gamos* believed to promote fertility throughout the land.

The life-giving garden associated with the Skidi planet-goddess also finds a symbolic counterpart in Sumerian tradition. Thus a garden of Inanna/Venus is mentioned in conjunction with the sacred marriage rite:

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<sup>184</sup> D. Reisman, *op. cit.*, pp. 190-191.

<sup>185</sup> E. van Buren, "The Sacred Marriage in Early Times in Mesopotamia," *Orientalia* 13 (1944), p. 34.

“A garden of the goddess (kiri<sub>6</sub>-nin-ku<sub>3</sub>-nun-na) is attested in the oldest extant ritual text...According to lines 9-11 of this ritual the king is to bathe in the garden on the night of the fourth day of the ritual.”<sup>186</sup>

The king himself, in accordance with this symbolism, was compared to a “gardener” while impersonating Dumuzi:

“Deified kings who enacted the role of the bridegroom were said to be placed ‘in the holy garden’. By analogous symbolism the divine bride was compared to a green garden.”<sup>187</sup>

As the Skidi held that “all life” originated from Venus’s sacred garden so, too, did the Sumerians deem the planet Venus to be the “divine source of all life.”<sup>188</sup> This is but one of dozens of archetypal motifs associated with Venus that will never be explained by reference to the planet familiar to modern astronomers.

The most comprehensive study of the sacred marriage rite in ancient Mesopotamia is that by Pirjo Lapinkivi. She poses the following question:

“The language of most of the sacred marriage texts is so explicitly sexual that it seems beyond question that they describe a sexual union between the king and the goddess Inanna, the consummation of their marriage. The crucial question, however, is, *why*? Why did this union take place, and why was it performed ritually...?”<sup>189</sup>

Lapinkivi then proceeds to answer her own question—the historical origins and fundamental purpose of the sacred marriage rite remain unknown:

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<sup>186</sup> M. Hall, *A Study of the Sumerian Moon-God, Nanna/Suen* (Philadelphia, 1985), pp. 750-751. This is a dissertation submitted to the University of Pennsylvania.

<sup>187</sup> E. van Buren, *op. cit.*, p. 31.

<sup>188</sup> F. Bruschweiler, *op. cit.*, p. 112. See also the discussion in B. Hrußka, “Das spätbabylonische Lehrschrift ‘Inanna’s Erhöhung’,” *Archiv Orientalni* 37 (1969), p. 482: “In der sumerischen Zeile wird <sup>d</sup>ištar-kakkabi mit dem Namen ti-mú-a ‘Leben erzeugende’ wiedergegeben.”

<sup>189</sup> P. Lapinkivi, *The Sumerian Sacred Marriage* (Helsinki, 2004), p. 14.

“Despite all the various suggestions reviewed above, no scholarly consensus has been reached regarding this basic question. While the importance of the sacred marriage for the Sumerians is obvious, it has remained enigmatic to the modern scholars.”<sup>190</sup>

There is an obvious reason why scholars have failed to discern the original significance of the sacred marriage rite: They have all but ignored the decisive role played by planets in the genesis of ancient myth and religion. Thus it is that the all-important role of the planet Venus in the sacred marriage rite has been essentially overlooked. The fact that most scholars have eschewed a comparative approach has also proven myopic and prevented them from discovering that analogous traditions surround Venus in other cultures. Modern prejudices notwithstanding, *the very fact that the Skidi Pawnee likewise associated the planet Venus with a sacred marriage associated with Creation* should prompt Sumerologists to consider the possibility that the sacred marriage rite has celestial determinants.

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<sup>190</sup> *Ibid.*, p. 14.

## 5. Inanna: Warrior-goddess extraordinaire

“While the fragmentary nature of our knowledge of Mesopotamian culture does not allow us to exclude the existence of astral allegorization among Babylonians, the plots of myths provide clear evidence that the primary concern of myth was with the great stages of human life, and that astral connections and allegorization cannot have shaped the myths in a significant way.”<sup>191</sup>

The Sumerian Inanna was the greatest goddess of the ancient world. Identified with the planet Venus already at the dawn of civilization, the ancient literary texts celebrating the planet-goddess describe a raging warrior hell-bent on destruction. Insofar as the testimony from Mesopotamia is at once abundant and remarkably detailed in nature, it represents a rich and invaluable resource for understanding how the earliest astronomers conceptualized the planet Venus.

The earliest literary texts from Mesopotamia date from the Early Old Babylonian period (ca. 2000-1800 BCE).<sup>192</sup> The corpus of hymns allegedly composed by Enheduanna, a daughter of Sargon (ca. 2300 BCE) himself, is representative of this period and literary genre. The hymn *nin-me-ĝar-ra*, generally known as “The Exaltation of Inanna,” rarely mentions the goddess by name; rather, Inanna is invoked through a series of epithets such as “great queen of queens”<sup>193</sup> or “hierodule of An.”<sup>194</sup> As the planet Venus, Inanna is celebrated as “senior queen of the heavenly foundations and zenith.”<sup>195</sup>

Inanna’s prowess as a warrior is a recurring point of emphasis in the Sumerian literary texts. The hymn *in-nin me-ĝuĝ-a*, otherwise known as “Inanna and Ebih,” celebrates the goddess as follows:

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<sup>191</sup> W. Heimpel, “Mythologie A. 1,” *Reallexikon der Assyriologie* 8 (Berlin, 1993-1997), pp. 538-539.

<sup>192</sup> J. Hayes, *A Manual of Sumerian Grammar and Texts* (Malibu, 2000), p. 394.

<sup>193</sup> See W. Hallo & J. van Dijk, *The Exaltation of Inanna* (New Haven, 1968), p. 23.

<sup>194</sup> *Ibid.*, p. 15.

<sup>195</sup> *Ibid.*, p. 29.

“Great queen Inanna, expert at fomenting wars, destroyer of the enemy country...like a lion you have filled heaven and earth with your roaring, and you have made the people quake.”<sup>196</sup>

Inanna’s warrior-prowess forms a prominent theme in the hymn known as in-nin ßa-gur<sub>4</sub>-ra, also attributed to Enheduanna. There Inanna is described as a terrifying warrior “clothed in awe-inspiring radiance,” whose wrath unleashes a powerful flood which brings widespread destruction.<sup>197</sup> In fact, the goddess’s path of destruction is said to extend “from the sunrise to the sunset.”<sup>198</sup> A recurring epithet of the planet-goddess in these early texts—*an al-dúb-ba ki sig-ga*, “[she] who shakes the sky and makes the earth tremble”<sup>199</sup>—emphasizes her destructive nature.

In another passage from the same hymn the warrior-goddess is represented as threatening the gods in heaven:

“She is a huge neckstock clamping down on the gods of the land, Her radiance covers the great mountain, silences the road, The gods of the land are panic-stricken by her heavy roar, At her uproar the Anunna-gods tremble like a solitary reed, At her shrieking they hide all together.”<sup>200</sup>

Elsewhere in the same hymn the warrior-goddess is said to come “from the sky”:

“Inanna, your triumph is terrible...[break in text] The Anunna-gods bow down their nose, they hurl themselves to the ground...you come *from* heaven.”<sup>201</sup>

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<sup>196</sup> Lines 5-9 in J. Black et al., “Inana and Ebih,” *The Electronic Text Corpus of Sumerian Literature* (<http://etcsl.orinst.ox.ac.uk/>) (Oxford, 1998-), hereafter *ETCSL*.

<sup>197</sup> Å. Sjöberg, “in-nin ßa-gur<sub>4</sub>-ra. A Hymn to the Goddess Inanna...,” *Zeitschrift für Assyriologie* 65 (1976), p. 181.

<sup>198</sup> *Ibid.*, p. 183.

<sup>199</sup> *Ibid.*

<sup>200</sup> *Ibid.*, p. 179.

<sup>201</sup> *Ibid.*, pp. 188-189. Italics in the original translation by Å. Sjöberg.

The hymn of Išme-Dagan paints a classic picture of Inanna as war-goddess. There, too, she is said to shake heaven while in the midst of her raging: “Holy Inana was endowed by Enlil and Ninlil with the capacity to make the heavens shake, to make the earth tremble...to shout with wide open mouth in battle and combat and to wreak carnage (?).”<sup>202</sup>

As can be seen from this brief summary, Inanna/Venus is depicted as an awe-inspiring numinous power, to be feared as well as propitiated. The following passage is representative in this regard: “Agitation, terror, fear, splendour, awe-inspiring sheen are yours, Inanna.”<sup>203</sup>

While reading the Sumerian literary descriptions of Inanna/Venus an obvious question presents itself: To what extent does the mythological imagery associated with Inanna accurately reflect the natural history and visual appearance of the planet Venus as experienced by the skywatchers and scribes of ancient Mesopotamia?

### **Great Light or Great Storm?**

One of the most important sources for reconstructing how the ancient Mesopotamians conceptualized the planet Venus is the so-called marriage hymn of Iddin-Dagan, the third king of the First Dynasty of Isin (ca. 1974-1954 BCE). The hymn in question opens by likening Inanna/Venus to a heaven-spanning “torch”: “To the holy torch who fills the heaven” (izi-gar-ku an-e si-a-ra).<sup>204</sup> Immediately thereafter the planet-goddess is invoked in equally grandiose terms: “To the light, Inanna, to her who shines like daylight” (su-du-ag<sup>d</sup> inanna-ra u<sub>4</sub>-gim zalag-ga-ra).<sup>205</sup> According to Daniel Reisman, the two clauses in this particular line represent parallel units and thus Inanna’s “light” (su-du-ag) was either equated with or compared to u<sub>4</sub>, here translated as “daylight.” In these two successive

<sup>202</sup> Lines 7-8 of “Inana and Išme-Dagan (Išme-Dagan K),” *ETCSL*.

<sup>203</sup> Line 161, Å. Sjöberg, *op. cit.*, p. 195.

<sup>204</sup> Line 4 as translated in D. Reisman, *Two New-Sumerian Hymns* (1970), p. 166. Note: This was a dissertation presented to the University of Pennsylvania.

<sup>205</sup> Line 5.

and mutually complementary lines, therefore, Inanna is likened to a gigantic torch that “fills heaven” and shines like the daylight, images that are extremely difficult to reconcile with Venus’s present modest luster.

Iddin-Dagan’s marriage hymn subsequently describes Inanna/Venus with the epithet *u<sub>4</sub>-gal*, conventionally translated as “great light”<sup>206</sup> or “huge brilliance”<sup>207</sup> (the adjective *gal* signifies “large” or great). In one passage the “great light” of the planet-goddess is said to fill the sky: “At evening, the radiant star, [the Venus-star], the great light which [fills] the heaven” (an-usan<sub>x</sub><sup>an</sup>-na mul dal[la e-a<sup>mul</sup> dili?-bad] *u<sub>4</sub>-gal* an-ku-[ge? si?-a]).<sup>208</sup>

How are we to understand such seemingly hyperbolic language, wherein Inanna/Venus is described as a gigantic light dominating the sky? In what sense can the distant speck that is Venus be said to fill all of heaven?

Ideally, a perfectly literal translation of the Sumerian texts would eliminate any ambiguity or need for interpretation. That said, the polyvalent nature of the Sumerian script renders this ideal little more than wishful thinking. The difficulties presented by the logogram *u<sub>4</sub>* (also written *ud*)—alternately translated as “sun,” “light,” “daylight,” and “storm,” depending on context—offer an instructive case in point.<sup>209</sup> Faced with such polyvalence, scholars must deduce the meaning of a particular word or phrase from its use within a phrase or sentence.<sup>210</sup>

Far from being an isolated or arbitrary metaphor, the epithet *u<sub>4</sub>* (or *u<sub>4</sub>-gal*) occurs repeatedly in literary descriptions of Inanna/Venus. It appears in the opening line of “A hymn to Inana as Ninegala,” for example, thereby attesting to its central importance in

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<sup>206</sup> J. Black et al, “A hymn to Inana as Ninegala (Inana D),” *ETCSL*. See also H. Behrens, *Die Ninegalla-Hymne* (Stuttgart, 1998), p. 29 who translates the term as “Grosses Licht.”

<sup>207</sup> J. Black et al, “A *Bir-namursaga* to Ninsiana for Iddin-Dagan (Iddin-Dagan A),” *ETCSL*.

<sup>208</sup> Line 87 as translated in D. Reisman, *op. cit.*

<sup>209</sup> J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 293.

<sup>210</sup> J. Hayes, *A Manual of Sumerian Grammar and Texts* (Malibu, 2000), p. 17.



the sacred terminology surrounding the planet-goddess.<sup>211</sup> The same epithet occurs in “A *Bir-namßub* to Inanna,” wherein the planet-goddess introduces herself as follows: “When I go into the hub of the battle, I go as one who brings forth its brightest light (?)” (u<sub>4</sub> zalag-zalag).<sup>212</sup>

In texts celebrating Inanna as a raging warrior-goddess the epithet u<sub>4</sub> often takes on a more ominous aspect. Such is the case in “A Hymn to the Goddess Inana,” wherein the planet-goddess is likened to a “furious stormwind” (ud Δuß):

“She stirs confusion and chaos against those who are disobedient to her, speeding carnage and inciting the devastating flood, clothed in terrifying radiance...Clothed (?) in a furious storm, a whirlwind, she...”<sup>213</sup>

Needless to say, it is difficult to understand such language by reference to the familiar planet Venus. In what sense does Venus present the appearance of a furious storm? And by what stretch of the imagination does the planet Venus engage in battle or stir confusion and chaos? The simple fact of the matter is that Venus *never* resembles a “furious” storm, much less a raging warrior inciting destruction and confusion—hence the glaring incongruity presented by these early and remarkably detailed descriptions, descriptions that find striking parallels across cultures.<sup>214</sup>

It is notable that, in the previous passage, Inanna/Venus is specifically identified as a “whirlwind.” The word in question here is dalΔamun<sub>2</sub>—a word which also signifies a “tornado.”<sup>215</sup> Significantly, the related word dalΔamun<sub>4</sub> means “confusion, disorder.”<sup>216</sup>

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<sup>211</sup> H. Behrens, *Die Ninegalla-Hymne* (Stuttgart, 1998), p. 29.

<sup>212</sup> Lines 23-24 in “A *Bir-namßub* to Inana, (Inana G),” *ETCSL*.

<sup>213</sup> Lines 18-20 in “A Hymn to Inana (Inana C),” *ETCSL*. Å. Sjöberg, *op. cit.*, p. 181, translated the passage as follows: “She is clothed in awe-inspiring radiance [su-lim-Δuß], Her (!?) joy (is) the fight, to...battle...A furious stormwind (?), prepared for battle, ...a whirlwind (?).”

<sup>214</sup> See the discussion in E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 91-151.

<sup>215</sup> J. Halloran, *op. cit.*, p. 39.

Similar conceptions are evident elsewhere as well. Thus, in an early *balbale* the planet-goddess describes her divinely ordained role as follows:

“He [Enlil] gave me battles and he gave me fighting. He gave me the stormwind [mar-uru<sub>5</sub>] and he gave me the dust cloud [dal<sup>?</sup>-Δa-mun].”<sup>217</sup>

A survey of Sumerian literature reveals that Inanna’s manifestation as a raging storm is central to her original character. A passage from “The Exaltation of Inanna” describing the planet-goddess is especially relevant here: “In the guise of a charging storm you charge” (u<sub>4</sub>-du<sub>7</sub>-du<sub>7</sub>-gim i-du<sub>7</sub>-du<sub>7</sub>-de).<sup>218</sup> Although the phrase du<sub>7</sub>-du<sub>7</sub> can signify “charge,” a more appropriate translation here, given the explicit meteorological/celestial context and Inanna’s epithet dalΔamun<sub>2</sub> (i.e., “whirlwind, tornado”) would be “to whirl”<sup>219</sup> or “to dance, circle around, and to rotate”<sup>220</sup>—a reference, perhaps, to a whirling tornado-like phenomenon. In fact, the planet Venus was commonly conceptualized as whirling dancer, particularly in her role as a storming warrior-goddess. Thus an Akkadian text describes Ishtar/Venus as she “who whirls [i-su-ur-ru] like a dust storm in the midst of the fray.”<sup>221</sup>

Analogous ideas are evident in “The Great Prayer to Ishtar,” wherein Inanna/Ishtar is described as follows:

“Planet for the war cry...Gushea, whose mail is combat, clothed in chilling fear...Shining Torch of heaven and earth, brilliance of all the inhabited lands, Furious in irresistible

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<sup>216</sup> *Ibid.*, p. 39.

<sup>217</sup> Lines 8-9 in “A *balbale* (?) to Inana (Inana F),” *ETCSL*.

<sup>218</sup> W. Hallo & J. van Dijk, *The Exaltation of Inanna* (New Haven, 1968), p. 19.

<sup>219</sup> This is the definition given for du<sub>7</sub> du<sub>7</sub> by the online Pennsylvania Sumerian Dictionary. See <http://psd.museum.upenn.edu/epsd/index.html>.

<sup>220</sup> J. Halloran, *op. cit.*, p. 46.

<sup>221</sup> *The Assyrian Dictionary, Vol. 15* (Chicago, 1984), p. 190, citing YOS 1 42:3.

onslaught, hero to the fight, Fiery glow that blazes against the enemy, who wreaks destruction on the fierce, Dancing One, Ishtar.”<sup>222</sup>

Here Inanna/Ishtar is invoked by the epithet Gushea (also spelled Agushaya), understood as “whirling dancer” by Akkadian scribes.<sup>223</sup> Ishtar/Venus is equipped with the same epithet in the so-called “The Agushaya Poem,” wherein the warrior-goddess is described as a “whirling dancer” enveloped in lightning:

“Her celebration is the melee, staging the dance of battle...Frenzy in battle, pas[sion] in strife, Were shown forth as [her] portion...He [Anu] gave her bravery, fame, and might, He surrounded her in abundance with lightning bolts flashing. Once again he added to her uncanny frightfulness, He had made her wear awesome radiance, ghastliness, valor.”<sup>224</sup>

The same Poem contains an apparent reference to a ritual celebration featuring whirling dances, the latter allegedly designed to emulate the war-like gait of the planet-goddess herself: “Let a whirling dance be established among the feast days of the year.”<sup>225</sup> In his notes to this passage, Benjamin Foster writes: “The whirling dance (*gußtu*) or mock combat the people perform is a memorial to Agushaya (=Ishtar), here etymologized by the poet as ‘the whirling dancer.’”<sup>226</sup>

“The Agushaya Poem” is notable for its archaic language.<sup>227</sup> Indeed, there is much reason to believe that it preserves very old traditions about the planet-goddess Ishtar/Venus. The idea that lightning enveloped Venus finds a remarkable parallel in “A

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<sup>222</sup> B. Foster, *Before the Muses* (Bethesda, 2005), pp. 601-603.

<sup>223</sup> *Ibid.*, p. 105.

<sup>224</sup> *Ibid.*, p. 98.

<sup>225</sup> *Ibid.*, p. 105.

<sup>226</sup> *Ibid.*, p. 105. See also B. Foster, “Ea and Saltu,” M. de Jong Ellis ed., *Essays on the Ancient Near East in Memory of J. J. Finkelstein* (New Haven, 1977), p. 84: “Once a year people would dance madly about the streets, their uproar a reminder of the warlike aspect of the goddess: *Agußaja*.” See in addition B. Groneberg, *Lob der Ištar* (Groningen, 1997), pp. 65-66.

<sup>227</sup> J. Westenholz, *Legends of the Kings of Akkade* (Winona Lake, 1997), p. 26.

Hymn to Inana as Ninegala,” wherein Inanna/Venus is addressed as follows: “in heaven you are lightning” (gir<sub>2</sub>).<sup>228</sup>

Evident in “The Agushaya Poem” is the archaic belief—emphasized repeatedly in Sumerian literary texts—that battle was the “dance” of Inanna/Venus.<sup>229</sup> Thus a hymn describes Inanna as follows: “the heroic lady, fit for battle, who, as the heroine of the battleground, makes the troops dance the dance of Inanna.”<sup>230</sup> The phrase in question here is ešmen <sup>d</sup>Inana, wherein the Sumerian word ešmen translates as “dance.” The word ešmen, in turn, derives from eše<sub>2</sub>, “rope,” and properly means “rope” or “skipping rope.”<sup>231</sup>

How or why Venus came to be associated with war or dancing has yet to be satisfactorily explained. Why should one particular planet, rather than another, be associated with the “dance” of battle?

A decisive clue comes from the fact that the “battle” of Inanna/Venus is elsewhere likened to a twirling rope. Witness the following passage: “O Ishtar, the battle and the fight twist around like a skipping rope” (<sup>d</sup>inanna ti-sùΔ giš-lá ešmen-gim ù-mi-ni-ib-sar-sar = <sup>d</sup>ištar ananti u tuqumta kîma keppê šutakpima.)<sup>232</sup> Such imagery is not easily explained by reference to the familiar Venus. Yet once consider the possibility that Venus formerly presented the appearance of a great tornado-like storm, whirling about while displaying a rope-like appendage, and the Sumerian imagery describing the “battle” of Inanna/Venus is explained at one stroke and in a perfectly logical manner.

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<sup>228</sup> Line 45.

<sup>229</sup> See Lines 135-137 in “Ninurta’s exploits: a *šir-sud* (?) to Ninurta,” *ETCSL*, for example.

<sup>230</sup> Lines 288-289 from “Enmerkar and the lord of Aratta,” *ETCSL*.

<sup>231</sup> J. Halloran, *op. cit.*, p. 67.

<sup>232</sup> Å. Sjöberg, *op. cit.*, p. 212. See also the discussion in B. Hruška, “Das spätbabylonische Lehrgedicht ‘Inanna’s Erhöhung,’” *Archiv Orientalni* 37 (1969), p. 488; and B. Landsberger, “Einige unerkant gebliebene oder verkannte Nomina des Akkadischen,” *WZKM* 56 (1960), p. 121.

To recap our findings to this point: the epithet characterizing Inanna/Venus as “Great Storm” must be interpreted in conjunction with the aforementioned epithet characterizing the planet-goddess as *u<sub>4</sub>-gal*—“Great Light.” It is our opinion that such watered-down translations hardly do justice to the terrifying meteorological phenomenon being described—a “gigantic” and destructive “storm” centered on (or emanating from) Venus. Faced with such literary descriptions of Inanna/Venus, modern scholars display an almost knee-jerk tendency to (mis)interpret the Sumerian terminology as figurative in nature. It is our opinion, in contrast, that the Sumerian epithets in question have relatively little to do with figurative language—that, in fact, the language employed by the ancient scribes accurately describes the planet-goddess Inanna/Venus as actually observed and experienced (albeit from a pre-scientific perspective). If we are to believe the ancient skywatchers, the original natural-historical reference for the Sumerian imagery was a towering celestial form in the throes of an extraordinary and awe-inspiring meteorological outburst, wherein the Venus-star was enveloped in lightning and displayed a tornado-like “tail,” the latter appendage being likened to a menacing skipping “rope” or whirling “battle.” A systematic analysis of the various terms used to describe the terrifying sights and sounds associated with Inanna/Venus reveals a wealth of evidence supporting this hypothesis.

### **The Roar Heard Across the Heavens**

In perfect keeping with her function as a raging storm-goddess, numerous literary passages celebrate Inanna/Venus as a prodigious roarer. Thus, the opening lines of “Inanna and Ebih” invoke the planet-goddess as follows:

“Goddess of the fearsome divine powers, clad in terror, riding on the great divine powers, Inana...drenched in blood, rushing around in great battles...covered in storm [ud] and flood [mar-ur<sub>5</sub>]...you destroy mighty lands...In heaven and on earth you roar [ßeg<sub>11</sub>] like a lion.”<sup>233</sup>

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<sup>233</sup> Lines 1-7 from “Inana and Ebih,” *ETCSL*.

The same meteorological imagery is evident in a later passage from the same hymn, wherein Inanna is described as follows: “She roared like thunder.”<sup>234</sup> The word translated as “thunder” here is *gu<sub>3</sub>-an-ne<sub>2</sub>-si*, literally “the word [noise, sound, voice<sup>235</sup>] which fills the sky.”<sup>236</sup> This particular phrase has long troubled commentators on the Sumerian texts, for what could it mean that the planet Venus roared like thunder? In his translation of a comparable passage from the hymn *in-nin ßà-gur<sub>4</sub>-ra*, Åke Sjöberg left the phrase untranslated: “When you howl like a ...[KA.AN.NI.SI-gin<sub>x</sub>] in your anger (you are) like a beating storm [u<sub>4</sub>].”<sup>237</sup> The online *ETCSL* translation, similarly, ignores any reference to the thunderous “roaring” of the planet-goddess: “Shattering it in your anger, as desired, you smashed it like a storm.”

The word *gu<sub>3</sub>-an-ne<sub>2</sub>-si* occurs only three times in the *ETCSL* corpus, twice in connection with Inanna/Venus. It would appear likely that the thunder-like phenomenon characterized as *gu<sub>3</sub>-an-ne<sub>2</sub>-si* is central to the terrifying theophany of the planet-goddess.

A thunderous “roaring” is also inherent to the Sumerian concept of *u<sub>4</sub>*, “storm.” Thus, in his commentary on the terms *u<sub>4</sub>* and *u<sub>4</sub>-gal*, Sjöberg observed that both are often “connected with verbs with [meaning] ‘to howl’, ‘to roar’.”<sup>238</sup> At the same time, however, Sjöberg points out that the original reference for *u<sub>4</sub>-gal* was “great light”: “The refs. quoted above point, however, to a meaning such as ‘storm’ (cf. *u<sub>4</sub>-gal=meΔu SL* 381, 333a), but this translation does not cover the meaning of the word; originally *u<sub>4</sub>* does not mean ‘storm’ but ‘light’ ...”<sup>239</sup>

If it is difficult to conceive how a word meaning “great light” eventually came to mean “great storm,” or why such terms came to be applied to a distant planet like Venus, it is even more difficult to understand why that particular planet would be described as a

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<sup>234</sup> Line 143.

<sup>235</sup> J. Halloran, *op. cit.*, p. 88.

<sup>236</sup> Å. Sjöberg, *op. cit.*, p. 230.

<sup>237</sup> Line 112 from Å. Sjöberg, *op. cit.*, p. 189.

<sup>238</sup> *Ibid.*, p. 100.

<sup>239</sup> *Ibid.*, p. 100.

tempestuous thunderer and source of lightning. In order for sound emanating from Venus to be heard on Earth, it would seem to be required that Inanna's planet was formerly closer than at present—either that or the interplanetary medium was formerly more conducive to transmitting sound waves.

### **Inanna's Terrifying Radiance**

The Sumerian texts are remarkably consistent in describing Inanna/Venus as a terrifying celestial specter. Thus, in the first line of “A *balbale* to Inana” *me-lem<sub>4</sub>* is used to qualify the epithet *u<sub>4</sub>-gal*, yet *me-lem<sub>4</sub>* itself properly denotes the terrifying radiance associated with Inanna/Venus and other celestial bodies.<sup>240</sup> J. Black et al translate the line in question—*ud Δuβ gal me-/lem<sub>4</sub>*—as follows: “Great fierce storm...radiance!”<sup>241</sup> The same word recurs in the second line of the hymn as well, wherein the raging warrior Inanna/Venus is described as *d<sub>1</sub>inanna me<sub>3</sub>-a ni<sub>2</sub> me-lem<sub>4</sub> gur<sub>3</sub>-ru*: “Inana, emitting fearsomeness and radiance in battle!”<sup>242</sup>

Other texts suggest that the noun *me-lem<sub>4</sub>* had reference to the terrifying “light” or “fire” emitted by the celestial storm. This idea is apparent in the following inscription from the reign of Shulgi—*ud-gal an-ta βu-ba-ra-gin<sub>7</sub> me-lem<sub>4</sub> sud-sud-me-en<sub>3</sub>*—translated as follows by *ETCSL*: “I am a great storm let loose from heaven, sending its splendour [*me-lem<sub>4</sub>*] far and wide!”<sup>243</sup>

The various adjectives used to qualify *me-lem<sub>4</sub>* likewise emphasize its terrifying and decidedly extraordinary nature. Thus the *me-lem<sub>4</sub>* is alternately characterized as *Δuβ*,

<sup>240</sup> According to J. Halloran, *op. cit.*, p. 172, *me-lem<sub>4</sub>* means “terrifying glance, splendor, radiance, awesome nimbus, halo, aura, light.”

<sup>241</sup> Line 1 in “A *balbale* to Inana (Inana A),” *ETCSL*.

<sup>242</sup> Note: The word *gur<sub>3</sub>-ru* properly means “clothed in” or “imbued with” and thus I would translate this passage as follows: “Inanna, imbued with fearsomeness and radiance in battle.”

<sup>243</sup> See line 3 from “A Praise Poem of Shulgi, (Shulgi C),” *ETCSL*. W. Römer, “Beitrage zum Lexikon des Sumerischen,” *Bibliotheca Orientalis* XXXII: 5/6 (1975), p. 147, translates the phrase as “Wie ein grosses Wetter, das vom Himmel losgelassen ist, lasse ich Schreckenglanz flimmern.”

“red/angry,” and as maΔ, “gigantic, impressive.” Significantly, the me-lem<sub>4</sub> is also likened to the terrifying “roar” or “tumult” of a god—za-pa-ag<sub>2</sub>—and said to possess an unbearable brilliance (su-lim tuk-a).<sup>244</sup> Whatever the Sumerian author of “A *balbale* to Inana” meant to convey by describing Inanna/Venus with the phrase ud Δuβ gal me-/lem<sub>4</sub>, it is safe to say that it was not a simple reference to the twinkling of the familiar Venus, as per the bland translation offered by Jeremy Black et al in the first line of “A *balbale* to Inana,” wherein me-lem<sub>4</sub> is translated as “radiance.”

Another term that features prominently in the Sumerian literature celebrating the raging Inanna/Venus is ni<sub>2</sub> (Halloran’s *Lexicon* defines ni<sub>2</sub> as “fear; respect; fearsomeness; awe.”<sup>245</sup>) Thus the very first line of “Inanna and Ebih” describes the planet-goddess “as clad in terror” (ni<sub>2</sub> gur<sub>3</sub>-ru).<sup>246</sup> Inanna-Venus is subsequently described as wearing “fearsome terror” (ni<sub>2</sub> Δuβ).<sup>247</sup> Later still she is invoked as follows: “She decked her forehead with terror and fearsome radiance” (ni<sub>2</sub> me-lem<sub>4</sub> Δuβ-a).<sup>248</sup>

In “The Exaltation of Inanna,” the planet-goddess is said to “have made awesome terror weigh upon the Land” (kalam-ma ni<sub>2</sub> mi-ni-ri).<sup>249</sup> The same basic image is evident in “A Hymn to Inana”: “Her great awesomeness covers the great mountain and levels the roads” (ni<sub>2</sub> gal-a-ni hur-sag gal dul-lu kaskal mu-un-sig<sub>9</sub>-sig<sub>9</sub>-ge).<sup>250</sup> Indeed, the planet-goddess herself could be addressed simply as “great awesomeness” (ni<sub>2</sub>-gal).<sup>251</sup> Sumerologists who believe such language has reference to the familiar Venus peacefully shining on the “land” while occupying a distant orbit are operating under a severe misconception, it would appear. The planetary power being described, if we are to

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<sup>244</sup> F. Bruschweiler, *Inanna la déesse triomphante et vaincue dans la cosmologie sumérienne* (Leuven, 1988), p. 119.

<sup>245</sup> J. Halloran, *op. cit.*, p. 195.

<sup>246</sup> Line 1 from “Inana and Ebih,” *ETCSL*.

<sup>247</sup> Line 13 from “Inana and Ebih,” *ETCSL*.

<sup>248</sup> Line 55 from “Inana and Ebih,” *ETCSL*.

<sup>249</sup> Line 18 from “The Exaltation of Inana (Inana B),” *ETCSL*.

<sup>250</sup> Line 10 from “A Hymn to Inana (Inana C),” *ETCSL*.

<sup>251</sup> Line 186 from “A Hymn to Inana (Inana C),” *ETCSL*.



believe the plain testimony of the Sumerian scribes, is nothing less than a towering planet-goddess hanging ominously over the land like a storm-bearing sword of Damocles.

Another term used to describe the terrifying “brilliance” of Inanna/Venus is *su-lim*, translated as “terrifying appearance; awesome radiance; splendor.”<sup>252</sup> In the aforementioned passage from “A Hymn to Inana” the planet-goddess was described as a raging warrior, stirring confusion and chaos while enveloped in the terrifying *su-lim*: “She stirs confusion and chaos against those who are disobedient to her, speeding carnage and inciting the devastating flood, clothed in terrifying radiance” (*su-lim*  $\Delta u\beta$   $gu_2$   $e_3$ ).<sup>253</sup>

The same term is used to qualify the “torch-star” Inanna in “The Exaltation of Inanna”: “May your torch, which spreads terror abroad, flare up in the middle of heaven.”<sup>254</sup> Significantly, the terrifying splendor (*su-lim*) of Inanna’s torch is said to have become “loosened,” “untied,” or otherwise spread out (*búr-búr*). This point was emphasized by Bruschweiler in her commentary on the passage in question: “We must therefore infer that *Bitpû* expresses the way in which the fire is burning, either that the flames are rising...or that they are untied, spreading (*BÚR BÚR*).”<sup>255</sup>

How, then, are we to understand the reference to the “loosening” or spreading of Venus’s fire? Would anyone use such language to describe the familiar Venus?

To return to the passage celebrating the terror-spreading torch-star that is Inanna/Venus: It is instructive to note that Akkadian scribes translated the Sumerian word *su-lim* as *ṣa-lum-mat*, “terrifying radiance.”<sup>256</sup> The latter word, in turn, was expressly likened to the awe-inspiring radiance of a comet:

<sup>252</sup> J. Halloran, *op. cit.*, p. 236.

<sup>253</sup> Lines 18 and 19 from “A Hymn to Inana (Inana C),” *ETCSL*.

<sup>254</sup> B. Hruška, “Das spätbabylonische Lehrgedicht ‘Inanna’s Erhöhung’,” *Archiv Orientalni* 37 (1969), p. 492.

<sup>255</sup> F. Bruschweiler, *op. cit.*, p. 112 translates *búr búr* as “untied or unbound.”

<sup>256</sup> H. Behrens, *op. cit.*, p. 73, citing lines 69-70 from “Inanna’s Exaltation.”

“If a UL (comet) that has a crest in front and a tail in back is seen and lights up the sky like a *Ballummu*...A *Ballummu* equals an awesome radiance [*Ba-lum-ma-tu*], An awesome radiance (a comet) equals an awesome radiance [*me-lam-mu*].”<sup>257</sup>

The question arises as to why Inanna/Venus would be described in terms otherwise characteristic of comets. Did the Sumerian skywatchers recognize a structural resemblance between Venus and comets, or was the shared terminology simply a reflection of the fact that Inanna’s planet, like comets, was regarded as a malevolent agent of terror, war, and destruction?

### **Lamashtu**

It has long been known that Inanna shares a fundamental affinity with the Sumerian demoness Lamashtu, although scholars have been hard-pressed to account for the fact.<sup>258</sup> Jan van Dijk confessed his inability to explain the connection: “Viel schwieriger ist es zu erklären, wie sie [Inanna] mit den gefürchteten Lamaßtu-Dämoninnen gleichgestellt wurde.”<sup>259</sup>

A witch-like goddess of terrifying appearance and ogre-like appetites, Lamashtu was said to have the head of a lion:

“Great is the daughter of Anu...She is cruel, raging, wrathful, rapacious...Her head is the head of a lion.”<sup>260</sup>

The raging demon was renowned for having disheveled hair. The following passage,

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<sup>257</sup> R. Chadwick, “Identifying Comets and Meteors in Celestial Observation Literature,” in H. Galter ed., *Die Rolle der Astronomie in den Kulturen Mesopotamiens* (Graz, 1993), pp. 173-174, citing K. 350 in CT XXVI 40.

<sup>258</sup> W. Fauth, “Ißtar als Löwengöttin und die löwenköpfige Lamaßtu,” *Die Welt des Orients* 12 (1981), pp. 21-36.

<sup>259</sup> J. van Dijk, “Inanna raubt den ‘grossen Himmel’: Ein Mythos,” In S. Maul ed., *Festschrift für Rykle Borger* (Groningen, 1994), p. 9.

<sup>260</sup> B. Foster, *op. cit.*, p. 982.

wherein Lamashtu's fall from heaven is recounted, is representative in this regard:

"She is a haunt, she is malicious, Offspring of a god, daughter of Anu. For her malevolent will, her base counsel, Anu her father dashed her down from heaven to earth, For her malevolent will, her inflammatory counsel. Her hair is askew, her loincloth is torn away."<sup>261</sup>

The image of Inanna/Lamashtu being hurled from heaven with disheveled hair once again calls to mind cometary imagery, comets having long been compared to women with disheveled or streaming hair.<sup>262</sup>

Over the course of untold centuries, Lamashtu eventually became demonized to a point at which her original identification with Inanna/Venus was all but forgotten. The transformation of the warrior-goddess into a witch was complete:

"Among all the devils and fiends of which the Mesopotamians lived in terror, the one that seems to have been the most dreaded was [Lamashtu], a she-devil, and the daughter of the great god Anu...The goddess Lamashtu was a violent, raging devil of terrifying aspect...With her hair tossed about wildly, and her breasts uncovered she burst out of the cane brakes like a whirlwind..."<sup>263</sup>

It is telling that Lamashtu's attributes find close parallels in the mythological traditions involving Inanna/Venus. As Lamashtu was said to have the head of a lion so, too, was Inanna/Venus invoked as the lion of heaven (pirig-an-na).<sup>264</sup> Thus the very first line of "A hymn to Inana as Ninegala" invokes the planet-goddess as follows: "Great Light, Lion of Heaven" (u<sub>4</sub>-gal pirig-an-na).

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<sup>261</sup> *Ibid.*, p. 76.

<sup>262</sup> C. Sagan, *Comet* (New York, 1985), p. 14 notes that "a comet suggests flowing tresses."

<sup>263</sup> E. Budge, *Amulets and Talismans* (New York, 1968), pp. 104-109. See also W. Fauth, *op. cit.*, p. 31, who cites the same passage.

<sup>264</sup> See line 1 of "A hymn to Inana as Ninegala (Inana D)," *ETCSL*.

Amazingly, the ancient scribes compared Lamashtu to a whirlwind, thereby recalling the description of Inanna/Venus as *dalΔamun*<sub>2</sub>. The disheveled hair of the witch-goddess, similarly, finds an intriguing parallel in a description of Ishtar's doppelgänger (Saltu) from "The Agushaya Poem": "Let her be fierce, Let her hair [be ex]traordinary, More [luxu]riant than an orchard."<sup>265</sup> In his commentary on this passage, Foster writes: "Exceptional hairiness was considered a sign of primitive strength."<sup>266</sup> At this point an obvious question presents itself: Why would the planet Venus be conceptualized as exceptionally hairy?

The fact that the raging warrior-goddess with disheveled hair can be found in the New World as well as the Old is compelling *prima facie* evidence that the imagery in question originated as a direct result of common experience—most likely a particularly memorable comet-like apparition.<sup>267</sup> Yet as the example provided by Inanna-Lamashtu attests, there is also an indissoluble connection with the planet Venus.

### **Inanna's Mane**

A Sumerian hymn celebrates the "glossy" mane of Inanna/Venus. Thus, the opening line of "A Song of Inana and Dumuzid" invokes the planet-goddess as follows: "Maiden, glossy mane."<sup>268</sup> The phrase in question here is [<sup>lu</sup><sub>2</sub>ki-sikil kun-sig<sub>3</sub>]/mul\mul-la, wherein ki-sikil is translated as "maiden" and kun-sig<sub>3</sub> as "mane." As is often the case with archaic epithets, their underlying etymologies reveal a great deal of valuable information with regards to archaic conceptions of Inanna/Venus.

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<sup>265</sup> B. Foster, "Ea and Saltu," *Memoirs of the Connecticut Academy of Arts and Sciences* 19 (1977), p. 99.

<sup>266</sup> *Ibid.*

<sup>267</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 113-144.

<sup>268</sup> "A Song of Inana and Dumuzid (Dumuzid-Inana R)," *ETCSL*.

According to Halloran's *Sumerian Lexicon*, the word kun-sig<sub>3</sub> breaks down as kun, "tail," and sig<sub>3</sub>, "to shake rhythmically."<sup>269</sup> Reduplicated, the latter word means "whirlwind."<sup>270</sup> In short, it is possible to recognize in the phrase "maiden, glossy mane" a not-so-veiled allusion to a hairy (or tailed) "star."

The same conclusion is suggested by the fact that the adjective mul\mul is used to describe Inanna's mane: this word is simply the reduplicated word for "star"—mul—used here in the sense of "shining" or "radiating" or "spreading out."<sup>271</sup> Indeed, the very same adjective is employed elsewhere to describe the celestial lioness Inanna/Venus—pirig an-na mul-mul-lu—thereby confirming the celestial (and luminous) nature of Inanna's "mane" in the passage before us.<sup>272</sup>

### **Inanna's Terrible Eye**

A number of Sumerian literary hymns emphasize the awe-inspiring and terrible nature of Inanna's eye(s). In "The Exaltation of Inanna," for example, the planet-goddess is celebrated as follows:

"That your glance is terrible—be it known! That you lift your terrible glance—be it known! That your glance is flashing—be it known."<sup>273</sup>

The expression translated as "terrible glance" in lines 128 and 129 is igi-hu<sub>3</sub>, literally "red or furious eye." The expression translated as "glance is flashing" is igi-gun-gun. Elsewhere in the same hymn the planet-goddess is described as leading the battle-charge in the form of a roaring storm. The passage in question is as follows:

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<sup>269</sup> J. Halloran, *op. cit.*, p. 150.

<sup>270</sup> *Ibid.*, p. 232.

<sup>271</sup> *Ibid.*, p. 180.

<sup>272</sup> Line 3 of "An *adab* to Inana for Ur-Ninurta, (Ur-Ninurta D)," *ETCSL*. P. Lapinkivi, *The Sumerian Sacred Marriage* (Helsinki, 2004), p. 40, likewise recognized a stellar context in this particular passage.

<sup>273</sup> W. Hallo & J. van Dijk, *op. cit.*, p. 31.

“In the van of battle, everything is struck down by you. Oh my lady, (propelled) on your own wings, you peck away (at the land). In the guise of a charging storm, you charge. With a roaring storm you roar. With Thunder you continually thunder. With all the evil winds you snort.”<sup>274</sup>

The expression translated “in the van of battle” by Hallo and van Dijk is Sumerian *igi me*, literally “eye of battle.” Viewed in the general context of the hymn’s imagery, which describes Inanna/Venus as a roaring, whirling storm, a translation “eye” for *igi* would seem more fitting than the otherwise nondescript “in the van of battle.” To this day, after all, meteorologists speak of the “eye” of a tornado or hurricane. The fact that Venus was conceptualized as a stellar “eye” around the globe is also relevant here.<sup>275</sup>

A curious passage in “A Hymn to the Goddess Inanna” credits the planet-goddess with the power to make the midday light turn to darkness. The passage in question reads as follows:

“When you are angrily staring that which is bright gets dark, you turn midday light to darkness.”<sup>276</sup>

Such imagery is extremely difficult to explain by reference to the familiar Venus, needless to say. That said, it is consistent with the planet’s role in ancient astronomical omens which, for some reason, point to an intimate connection between Venus and the sudden onset of darkness: “As clearly stated in the omen texts, the responsibility for such feats [i.e., the darkening of the daylight] is *Ištar*’s.”<sup>277</sup> What, then, is the point of reference for the phrase “angry glare”? The phrase in question is *igi-suΔ*, literally “eye torn out or extracted.”<sup>278</sup> What does it mean to say that Venus, or its “eye,” is angry or

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<sup>274</sup> *Ibid.*, pp. 17-19.

<sup>275</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 156-158.

<sup>276</sup> Line 177 in Å. Sjöberg, *op. cit.*, p. 197.

<sup>277</sup> J. Westenholz, *Legends of the Kings of Akkade* (Winona Lake, 1997), p. 69.

<sup>278</sup> See the Pennsylvania Dictionary Online. J. Halloran, *op. cit.*, p. 123, translates *suΔ* as “popped out.”

torn out?<sup>279</sup> It is the catastrophic context of the mythological imagery in question that explains its likely celestial reference. Earlier in the same hymn, it will be remembered, the raging warrior-goddess was said to “stir confusion and chaos.” The latter phrase is  $su\Delta_3$   $igi$   $su\Delta_3$ - $su\Delta_3$ - $su\Delta_3$ , wherein  $su\Delta_3$  signifies “confusion, disorder, and chaos.”<sup>280</sup> In a subsequent passage Inanna/Venus is described as inciting rebellion ( $igi$ - $su\Delta_3$ -[ $su\Delta_3$ ]): “Quarrel, rebellion, struggle, battle and massacre are yours, Inanna.”<sup>281</sup> Taken literally, such passages imply that the planet Venus itself was responsible for inciting the confusion/rebellion ( $su\Delta_3$ ) in question. This, in fact, is precisely our claim: It was the raging celestial Eye (Inanna/Venus) that brought cosmic disorder and confusion. Not surprisingly, the Sumerian language would appear to have preserved a direct link between the “angry glare” of the raging planet-goddess— $igi$ - $su\Delta$ —and the “confusion and disorder” wrought by her— $su\Delta_3$   $igi$   $su\Delta_3$ - $su\Delta_3$ - $su\Delta_3$ —hitherto overlooked.

It is instructive to note that the Sumerian imagery surrounding the raging Inanna/Venus finds a precise parallel in ancient Egypt. Thus it is that a recurring theme in Egyptian mythological tradition finds a raging warrior-goddess taking the form of a fire-spewing Eye and threatening to destroy the world with her terrifying rampages. In a passage rich in significance, the Coffin Texts speak of the “hair” raised from the Eye during its “raging.”<sup>282</sup> A gloss from the Papyrus of Ani explains the reference to the raging Eye as follows: “I raise up the hair at the time of storms in the sky...It is the right Eye of Ra in its raging against him after he hath made it to depart.”<sup>283</sup>

In light of such striking parallels the question arises as to whether the Egyptian Eye-goddess has any relationship to the planet Venus? According to Rolf Krauss, author of the most comprehensive analysis of Egyptian star-religion to date, the Eye of Ra/Horus is

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<sup>279</sup> It will be noted that the Pyramid Texts (1463) speak of the Eye of Horus being “gouged out.”

<sup>280</sup> Line 18 in Å. Sjöberg. For the definition of  $su\Delta$ , see J. Halloran, *op. cit.*, p. 239

<sup>281</sup> Line 164 in Å. Sjöberg, *op. cit.*, p. 194.

<sup>282</sup> CT IV: 238: “I raised the hair from the Sacred Eye at its time of wrath.”

<sup>283</sup> R. Faulkner, *The Egyptian Book of the Dead* (San Francisco, 1994), plate 8. See also E. Budge, *The Egyptian Book of the Dead* (London, 1901), pp. 36-37.

to be identified with the planet Venus.<sup>284</sup> That said, how are we to understand the cataclysmic context of the Eye's rampages—i.e., its bizarre capacity for raining fire and destruction on mankind? Why would the raging of the Venusian "Eye" be linked to "upraised" hair or "storms"? On these all-important questions Krauss had nothing substantive to offer, noting simply: "It remains unclear how the observer understood raging and peacefulness."<sup>285</sup>

### **Inanna's Tangled Threads**

The final paragraphs of the Sumerian hymn "Enki and the world order" find Enki attempting to appease an angry Inanna by recounting all the powers that he has granted her. War, as usual, is presented as Inanna's special purview. A curious passage finds Enki announcing to the planet-goddess that he made her "tangle straight threads" while in the hurly-burly of battle.<sup>286</sup> The Sumerian word translated as "tangle" here is *su*Δ<sub>3</sub>—the very word which, when reduplicated, signifies the confusion/disorder promoted by Inanna/Venus. Significantly, the phrase *su*Δ<sub>3</sub>-*su*Δ<sub>3</sub> also denotes the frenzied *mêlée* of battle<sup>287</sup> and the darkening of heaven.<sup>288</sup> This overlap in terminology suggests that the "confusion/disorder" incited by Inanna/Venus was somehow connected to "tangled" threads, however the latter are to be conceptualized. The fact that the same word—i.e., *su*Δ<sub>3</sub>—is elsewhere<sup>289</sup> employed to describe the tangled or disordered hair of Inanna/Venus enables us to deduce the answer: It was the disheveled "hair" of the planet Venus that signaled the onset of cosmic confusion and disorder.

### **Venusian Iconography**

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<sup>284</sup> R. Krauss, "The Eye of Horus and the Planet Venus: Astronomical and Mythological References," in J. Steele & A. Imhausen eds., *Under One Sky* (Münster, 2002), pp. 193-208.

<sup>285</sup> *Ibid.*, p. 201.

<sup>286</sup> Line 440-441.

<sup>287</sup> The word is translated as "mêlée" in line 25 of "A *tigi* for Inana (Inana E)," *ETCSL* for example.

<sup>288</sup> See line 82 of "The lament for Sumer and Urim," *ETCSL*.

<sup>289</sup> Line 13 of "A *balbale* to Inana (Dumuzid-Inana C)," *ETCSL*.



If indeed the planet Venus formerly presented the appearance of a whirling storm or long-haired celestial body, it stands to reason that this history must be reflected in the pictographic record associated with that star.<sup>290</sup> The most common symbol for the planet Venus in Mesopotamian art depicts an eight-rayed star (see figure one).<sup>291</sup> This symbol traces to the dawn of history and thus must be deemed prehistoric in nature.



**Figure one**



**Figure two**

On rare occasions, however, the star of Ishtar/Venus is depicted as a pinwheel-like form, with multiple streamers radiating out from the central hub, as in figure two.<sup>292</sup> As I have documented elsewhere, analogous images denote the planet Venus around the globe, compelling evidence that the whirling-stars in question accurately reflect the ancient appearance of Venus. Figure three, for example, shows a picture of Venus from a Teleut

<sup>290</sup> See the discussion in E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 113-127.

<sup>291</sup> Adapted from O. Keel & C. Uehlinger, *Gods, Goddesses, and Images of God* (Minneapolis, 1998), figure 287.

<sup>292</sup> Adapted from *ibid.*, figure 317b.

shaman's drum (the Teleuts hail from Southern Siberia).<sup>293</sup> Figure four shows a picture of Venus from a shaman's drum in Chile.<sup>294</sup> It will be noted that in both of these images Venus appears to be radiating whirling streamers from its core. Figure five, finally, is a seventeenth century depiction of the Venus-star from Incan Peru.<sup>295</sup> Significantly, the Inca knew Venus as Chasca, which translates as "star (*coyllur*) with tangled or disheveled hair."<sup>296</sup> Such testimony is in striking accord with the testimony from ancient Mesopotamia surrounding Inanna/Venus.



**Figure three**



**Figure four**

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<sup>293</sup> Adapted from E. Krupp, *op. cit.*, p. 16.

<sup>294</sup> Adapted from E. Krupp, *op. cit.*, p. 15.

<sup>295</sup> Adapted from E. Krupp, "Phases of Venus," *Griffith Observer* 56:12 (1992), p. 14.

Note: Venus/Chasca is the second object in the upper left, just below the Sun.

<sup>296</sup> W. Sullivan, *The Secret of the Incas* (New York, 1996), p. 87, citing Diego Holquin's *Vocabulario de la lengua general de todo el Peru llamada lengua Quichua o del Inca*.

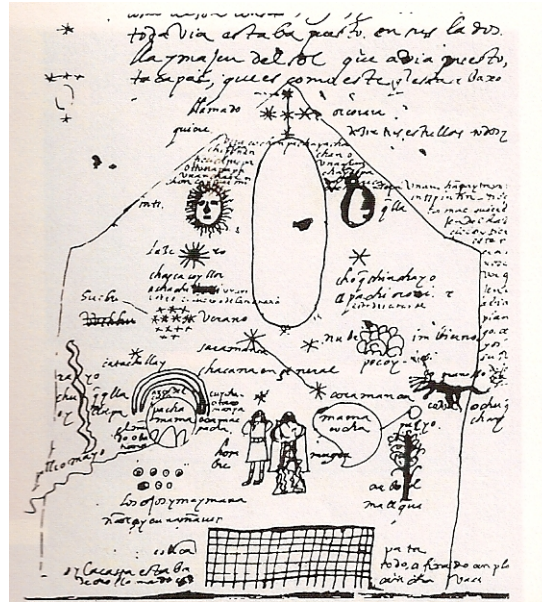


Figure five

## Conclusion

Ancient Mesopotamia is renowned as the birthplace of scientific astronomy and, as such, it experienced a long history of skywatching marked by careful observation of the respective celestial bodies. This being the case it is disconcerting to discover that Sumerian descriptions of the planet Venus often fail to accord with astronomical reality as currently understood. Conceptualized as a raging warrior whose fiery rampages threatened the world with destruction, Venus was described as an enormous celestial form whose terrifying “radiance” filled all of heaven and rivaled “daylight.” Thus it is that Venus was commonly denoted by the epithet *u<sub>4</sub>-gal*, a phrase translated as “great or big light.” Yet the very same phrase is elsewhere translated as “great storm,” a startling extension of meaning. Whatever the historical explanation for this peculiar conflation of meteorological imagery, the fact remains that Venus is repeatedly described as a furious storm (*ud Δuß*) and raging warrior.

Properly understood, the raging warrior-goddess that is Inanna/Venus—explicitly identified with the whirling dancer Agushaya—is inseparable from the raging, whirling storm denoted as *u<sub>4</sub>-gal* or *dalΔamun<sub>2</sub>*. The comparison of Inanna/Venus to a “furious

storm” or whirling tornado—while wildly incongruous as a description of the familiar Venus—is a perfectly apt description of a lightning-laden celestial body whose comet-like “hair” became unloosed and appeared to whirl about it like a great tornado-like rope. A Sumerian hymn celebrating the mourning goddess Geshtinanna captures this image perfectly: “My hair will whirl around in the air [literally heaven, an-na] like a hurricane for you.”<sup>297</sup> If such mythological traditions have an origin in historical/astronomical events—and it is impossible to explain the imagery surrounding Inanna/Venus apart from a tempestuous and stupendously turbulent celestial prototype—it is possible to deduce that it was the whirling “hair” of the planet Venus that darkened the prehistoric skies, thereby ushering in a period of cosmic disorder marked by “war,” terrifying storms, and “confusion.” The extraordinary storms in question, if we are to believe the ancient Sumerian scribes, were awe-inspiring and apocalyptic, shaking the heavens and threatening the world with destruction.

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<sup>297</sup> Line 67 in “Dumuzid’s Dream,” *ETCSL*. See also B. Alster, *Dumuzi’s Dream* (Copenhagen, 1972), p. 61.

## 6. Inanna's Earliest Symbol

“While it is certain that the volute-like structure represents a symbol of Inanna, its meaning remains a mystery.”<sup>298</sup>

“To some extent, of course, the form given to numinous encounter may adjust to the content revealed in it. It may be abbreviated to a single salient feature, as when Inanna, the numinous power in the storehouse, assumes the form of the characteristic gatepost emblem of the storehouse, rather than the storehouse as a whole.”<sup>299</sup>

The earliest Sumerian script, like those of Egypt, China, and Mesoamerica, was primarily pictographic in nature.<sup>300</sup> Thus the signs employed to represent individual words and concepts were frequently simply pictorial representations of those words; i.e., “grain” was signified by a sheaf of grain; “bird” by the picture of a bird; “to stand” by a picture of a foot, etc. As the script evolved the range of words was expanded significantly by means of so-called parasemantic shifts wherein the same sign was employed to signify different concepts according to context.<sup>301</sup>

In the most archaic texts from Uruk—conventionally attributed to roughly 3300 BCE<sup>302</sup>—Inanna's name was written with a sign known as MU<sub>3</sub>, commonly interpreted as a gate-post with streamer (see figure one).<sup>303</sup> Elizabeth Van Buren observed that a single gate-post with streamer “is always used on pictographic tablets to symbolize the goddess,” and that it frequently appears together with the star-sign.<sup>304</sup> Although most

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<sup>298</sup> P. Steinkeller, “Inanna's Archaic Symbol,” in J. Braun et al eds., *Written on Clay and Stone* (Warsaw, 1998), p. 89.

<sup>299</sup> T. Jacobsen, *The Treasures of Darkness* (New Haven, 1976), p. 7.

<sup>300</sup> M. Thomsen, *The Sumerian Language* (Copenhagen, 1984), p. 20.

<sup>301</sup> N. Postgate, T. Wang & T. Wilkinson, “The evidence for early writing...,” *Antiquity* 69 (1995), p. 451.

<sup>302</sup> J. Glassner, *The Invention of Cuneiform* (Baltimore, 2003), p. 45.

<sup>303</sup> C. Wilcke, “Inanna/Ishtar,” *Reallexikon der Assyriologie* 5 (Berlin, 1976-1980), pp. 74-75. For the various examples of this sign in archaic texts, see M. Green & H. Nissen, *Zeichenliste der archaischen Texte aus Uruk* (Berlin, 1987), p. 248.

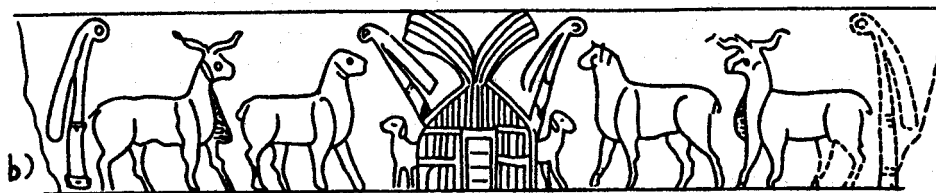
<sup>304</sup> E. Van Buren, *Symbols of the Gods in Mesopotamian Art* (Rome, 1945), p. 43.

examples of this sign have been found at the archaic E-anna precinct at Uruk, it also occurs elsewhere in Mesopotamia during the same period.<sup>305</sup>



**Figure one**

An obvious question presents itself: If the MUl<sub>3</sub>-sign is to be regarded as a pictograph denoting Inanna, to what natural object might it refer? Walter Andrae proposed that the spiraling image depicted a pole-like reed-bundle adorning the sacred sheepfold,<sup>306</sup> an interpretation that has since found acceptance with many scholars in the field (see figure two). Thorkild Jacobsen, who viewed Inanna as originally embodying the numen of the date-storehouse, had this to say: “Her emblem—that is to say, her preanthropomorphic form—confirms this, for it is, as Andrae has shown, a gatepost with rolled up mat to serve as a door, a distinguishing mark of the storehouse.”<sup>307</sup>



**Figure two**

Samuel Kramer also endorsed Andrae’s interpretation of Inanna’s symbol. At the same time, he suggested that the MUl<sub>3</sub>-sign’s peculiar form was patterned after the female body:

<sup>305</sup> K. Szarzynska, “Some of the Oldest Cult Symbols in Archaic Uruk,” *Jaarbericht ex Oriente Lux* 30 (1987-88), p. 10.

<sup>306</sup> W. Andrae, *Die Ionische Säule* (Berlin, 1933), pp. 20-67.

<sup>307</sup> T. Jacobsen, *The Treasures of Darkness* (New Haven, 1976), pp. 36, 135.

“These polelike objects are the gatepost emblems of Inanna and appear as her symbol in both the art and the earliest pictographic script from her city, Uruk. They most frequently appear as a pair and are thought to designate the entrance to her temple...On the basis of the ring and streamer at its summit, this emblem’s architectural function has been suggested to be that of a doorpost...The role of the doorpost as a kind of ‘sentry’ guarding the vulnerable entrance to the temple rendered it an important apotropaic, protective emblem in later art. Certainly, this tall emblem with its long streamer surmounted by a round ring is evocative of the female form, and is perhaps a sort of ‘totem’ of the goddess Inanna.”<sup>308</sup>

Recently, however, the conventional interpretation of the MU<sub>3</sub>-sign has come under question. In a review of the evidence pertaining to Inanna’s early symbol, Piotr Steinkeller criticized Andrae’s interpretation by pointing out that the so-called reed-bundles are purely decorative in function and thus could hardly serve as “an organic part of the pen.”<sup>309</sup> Steinkeller noted that the symbol’s original significance continues to elude scholars,<sup>310</sup> leading many to doubt whether the symbol ever had a concrete reference in the natural world:

“But, beyond Andrae’s suggestion, no one has ever attempted to assign to the volute-like structure any specific meaning. The prevailing opinion is that the symbol is devoid of any representational content. Thus, scholars have been content to refer to it purely descriptively, by using such designations as ‘Schilfringbündel,’ ‘a shaft with a banner,’ ‘la hampe à banderole,’ ‘ring-headed post, usually with streamers,’ or ‘roller-blind reed pylon.’”<sup>311</sup>

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<sup>308</sup> D. Wolkstein & S. Kramer, *Inanna* (New York, 1983), p. 188.

<sup>309</sup> P. Steinkeller, “Inanna’s Archaic Symbol,” in J. Braun et al eds., *Written on Clay and Stone* (Warsaw, 1998), p. 89.

<sup>310</sup> *Ibid.*: “While it is certain that the volute-like structure represents a symbol of Inanna, its meaning remains a mystery.”

<sup>311</sup> *Ibid.*, p. 90.

Rather than a reed-bundle, Steinkeller proposed that the object represented in the MU<sub>3</sub>-sign was a head-band or scarf. Steinkeller concluded his article as follows:

“To summarize our conclusions, in the ED passage in question the emblem (urin) of Inanna (=Inanna’s volute-like symbol) is described as a lapis lazuli scarf (bar-si). That scarf was not unlike the ‘diadem’ (suh), which is one of the meanings of MU<sub>1</sub>/MU<sub>1</sub> (a drawing of Inanna’s volute-like symbol). It would seem, therefore, that the archaic symbol of Inanna depicts a scarf or head-band.”<sup>312</sup>

It is our opinion that Steinkeller’s hypothesis represents an important contribution to the debate. That said, it is not clear why a head-band, crown, or scarf would be chosen to denote Sumer’s greatest goddess.

With Jacobsen, most scholars have sought to understand Inanna by reference to her connection with sacred storehouses and fertility.<sup>313</sup> Yet it is well known that Inanna was identified with the planet Venus already at the dawn of the historical period.<sup>314</sup> Hence the question arises: If the MU<sub>3</sub>-sign is to be interpreted with reference to Inanna’s fertility functions, how and why did the goddess come to be associated with the planet Venus? Helgard Balz-Cochois aptly summarized the situation as follows:

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<sup>312</sup> *Ibid.*, p. 95.

<sup>313</sup> For Joan Westenholz, “Goddesses of the Ancient Near East 3000-1000 BC,” in L. Goodison & C. Morris eds., *Ancient Goddesses* (London, 1998), p. 73 Inanna represents “the numen of the city’s central storehouse.” G. Leick, *A Dictionary of Ancient Near Eastern Mythology* (London, 1991), p. 87 writes: “Inanna represented the force of sexual reproduction.” On p. 88 she writes: “She represents the force of fertility rather than the process of birth itself.” P. Steinkeller, “On Rulers, Priests and Sacred Marriage,” in K. Watanabe ed., *Priests and Officials in the Ancient Near East* (Tokyo, 1996), p. 113, likewise, identifies Inanna as “the goddess of sex drive.”

<sup>314</sup> W. Heimpel, “A Catalog of Near Eastern Venus Deities,” *Syro-Mesopotamian Studies* 4 (1982), pp. 10-11: “It is, of course, a well-known fact that Inanna was identified with the planet Venus. Astronomical and astrological texts provide clear identifications...When and how the link between the planet was made cannot now be ascertained. It is prehistorical...[It] was already complete when Inanna met Ishtar.”



“The earliest history of Sumer has two symbols at hand by which can be established a reconstruction of the numinous ancient experience: Reed-ring bundle and evening star. How could they be connected with the erotic-aggressive nature of a female goddess?”<sup>315</sup>

Hitherto it has always been assumed that there is no inherent connection between the MU<sub>3</sub>-sign and the Venus-star. Indeed, the prevailing view appears to be that Inanna was originally associated with fertility—and thus, by association, with the sacred storehouse and reed-ring bundle—and only later became identified with the planet Venus. We would challenge this view based upon the fact that there is no discernible historical period in which Inanna is not identified with the planet Venus.<sup>316</sup> Especially relevant is the following fact, overlooked entirely by all Sumerologists: *the planet Venus is associated with fertility by indigenous cultures around the globe.*<sup>317</sup>

In seeking to offer a unifying theory of Inanna’s origins we would start from first principles—the goddess’s identification with the planet Venus—and proceed from the known to the unknown. In the earliest period for which we have written evidence (Uruk IV), the MU<sub>3</sub>-sign typically appears without the divine determinative, although exceptions do occur. In the subsequent Uruk III period, the sign is usually accompanied by a divine determinative.<sup>318</sup> Inasmuch as the cuneiform determinative for “god” features an eight-pointed star, it stands to reason that Inanna was identified with a celestial body during this period. Indeed, the world’s foremost expert on the archaic Uruk script—Krystyna Szarzynska—suggests that in the earliest period the divine determinative seems to have been reserved for astral deities: “In the most archaic period

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<sup>315</sup> H. Balz-Cochois, *Inanna* (Gütersloh, 1992), p. 46.

<sup>316</sup> G. Selz, “Five Divine Ladies,” *NIN* 1 (2000), pp. 29-30 writes: “It should be regarded as certain that from proto-historical times Inana(k) was conceived of as a female Venus deity. This is put beyond any reasonable doubt by the interpretation of her name as ‘Lady of Heaven or ‘Queen of Heaven.’...In her research on the textual materials from the Uruk IV-III periods, K. Szarzynska has argued convincingly that the goddess Inana(k) was identified with the planet Venus as early as Uruk IV/III.”

<sup>317</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 25-34; 83-87.

<sup>318</sup> K. Szarzynska, “Cult of the Goddess Inana in Archaic Uruk,” in *Sumerica* (Warsaw, 1997), p. 142.

the determinative dingir was associated with astral deities only.”<sup>319</sup> According to Szarzynska, the cult of astral deities reaches back to the proto-Sumerian period, perhaps earlier.<sup>320</sup>

If the identification of Inanna and Venus was prehistoric in nature—and the evidence certainly supports Szarzynska on this point<sup>321</sup>—it stands to reason that the MU<sub>3</sub>-sign might also have had some reference to the planet. Certainly this possibility cannot be ruled out based upon the extant evidence. How, then, are we to understand this particular pictograph by reference to Venus?

It must be admitted that it is difficult to reconcile the spiraling volute-form of the MU<sub>3</sub>-sign with the familiar appearance of Venus. Indeed, the MU<sub>3</sub>-sign would seem more representative of a comet than a planet. With respect to the twelve principal variants of this symbol depicted in Adam Falkenstein’s *Archaische Texte aus Uruk*, Lynn Rose noted that “every one of them looks like a comet.”<sup>322</sup> Peter Huber—a noted authority on ancient Near Eastern astronomical traditions—acknowledged the resemblance: “The Inanna symbol sometimes looks like a comet.”<sup>323</sup> Is it possible, then, that a comet-like object served as the natural prototype for the archaic pictograph of Inanna?<sup>324</sup>

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<sup>319</sup> K. Szarzynska, “Some of the Oldest Cult Symbols in Archaic Uruk,” *Jaarbericht ex Oriente Lux* 30 (1987-88), p. 11.

<sup>320</sup> Personal communication, March 22, 1997, with reference to the article “Cult of the Goddess Inana in Archaic Uruk.”

<sup>321</sup> P. Beaulieu, *The Pantheon of Uruk During Neo-Babylonian Period* (Leiden, 2003), p. 104 writes: “This [the evidence collected by Szarzynska] clearly indicates that the astral identity of Inanna was not the result of late, learned speculations, but indeed a very old and fundamental aspect of the goddess, with roots going back to prehistoric times.”

<sup>322</sup> L. Rose, “A Critique of Peter Huber,” in L. Greenberg & W. Sizemore, eds., *Velikovsky and Establishment Science* (Glassboro, 1977), p. 108.

<sup>323</sup> Quoted in *Ibid.*, p. 109.

<sup>324</sup> This possibility, in turn, recalls Immanuel Velikovsky’s controversial thesis that the planet Venus formerly presented a comet-like form. See *Worlds in Collision* (New York, 1950). See also E. Cochrane & D. Talbott, “When Venus was a Comet,” *Kronos* 12:1 (1987), pp. 2-24.

If the MUĪ<sub>3</sub>-sign originally had reference to a comet-like object—one somehow connected to the planet Venus—it stands to reason that cometary symbolism should be evident in early literary descriptions of the Sumerian goddess. And this is certainly the case, as we have documented (see chapter five).<sup>325</sup> Again and again in the Sumerian texts Inanna is described as raining fire and destruction from the sky. In *The Exaltation of Inanna*, for example, the planet-goddess is described as “Raining the fanned fire down upon the nation.”<sup>326</sup> The same idea is apparent in a bilingual hymn to Inanna: “I was the blazing, the brilliant (?), fire, I was the blazing fire which became alight in the mountainland; I was the fire whose flame and sparks (?) rained down upon the Rebel land.”<sup>327</sup>

Essential to a proper understanding of Inanna’s numinous nature is the cataclysmic context of her incendiary theophany, explicit in the passages cited above and emphasized repeatedly in the Sumerian literature describing the planet-goddess. Far from being unique to Mesopotamia, the image of a fire-spewing Venus-goddess flying about the skies and threatening the world with destruction is attested around the globe.<sup>328</sup> Analogous language is evident in literary accounts of the Semitic goddess Ishtar, explicitly identified with the planet Venus:

“I rain battle down like flames in the fighting, I make heaven and earth shake (?) with my cries...I constantly traverse heaven, then (?) I trample the earth. I destroy what remains of the inhabited world.”<sup>329</sup>

The following hymn to Ishtar/Venus is of similar import:

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<sup>325</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 99-127.

<sup>326</sup> W. Hallo & J. van Dijk, *The Exaltation of Inanna* (New Haven, 1968), p. 17.

<sup>327</sup> ASKT, 129, lines 11-16 as quoted in J. Wilson, *The Rebel Lands* (Cambridge, 1979), p. 18.

<sup>328</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 113-165.

<sup>329</sup> B. Foster, *Before the Muses* (Bethesda, 1993), p. 74.

“Planet for the warcry...*Gushea* [an epithet of Ishtar], whose mail is combat, clothed in chilling fear...At the thought of your name, heaven and the netherworld quake...Shining torch of heaven...Fiery glow that blazes against the enemy, who wreaks destruction on the fierce, Dancing One, Ishtar...”<sup>330</sup>

Here, as in the Sumerian hymns describing Inanna, *it is the planet Venus* that is raining fire and destruction from the sky. The celestial context of the imagery in question could hardly be more evident or explicitly stated.

It will be noted, moreover, that Inanna’s manifestation as the raging fire (Sumerian *izi*) is fundamentally indistinguishable from her appearance as a stellar “torch” (Sumerian *izi-gar*). Thus, if one hymn invokes Inanna as a terrifying fire—“When in heaven, Inana, you diffuse awesomeness [*ni<sub>2</sub>*] like fire [*i-zi-gim*]”<sup>331</sup>—another invokes her as a terrifying torch-star: “May your torch, which spreads terror abroad, flare up in the middle of heaven.”<sup>332</sup> Yet “torch-star” was a common name for “comet” around the globe.<sup>333</sup>

Equally telling is the fact that the planet-goddess was elsewhere likened to a terrifying dragon moving across the sky. It was in that form, according to *The Exaltation of Inanna*, that the war-mongering planet-goddess rained fire from heaven:

“Like a dragon you have deposited venom on the land, When you roar at the earth like Thunder, no vegetation can stand up to you. A flood descending from its mountain, Oh foremost one, you are the Inanna of heaven and earth! Raining the fanned fire down

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<sup>330</sup> *Ibid.*, pp. 510-512.

<sup>331</sup> Line 120 from “A Hymn to Inana as Ninegala (Inana D),” *ETCSL*.

<sup>332</sup> B. Hrußka, “Das spätbabylonische Lehrgedicht ‘Inannas Erhöhung’,” *Archiv Orientalni* 37 (1969), p. 492. The original translation is as follows: “Deine Fackel, die Schrecken verbreitet, möge inmitten des Himmels entzündet werden!” See also W. Römer, “Beitrage zum Lexikon des Sumerischen,” *Bibliotheca Orientalis* XXXII: 5/6 (1975), p. 297, who offers a virtually identical translation.

<sup>333</sup> U. Dall’Olmo, “Latin Terminology Relating to Aurorae, Comets, Meteors, and Novae,” *Journal for the History of Astronomy* 11 (1980), pp. 16-20.

upon the nation...When mankind comes before you In fear and trembling at your tempestuous radiance.”<sup>334</sup>

Far from being atypical or exceptional, such cataclysmic imagery abounds in the earliest hymns invoking Inanna.

The disaster-bringing Inanna-dragon represents a Gordian knot—one that must be confronted and unraveled if we are to ever understand the awe-inspiring celestial power that is Inanna/Venus. Hitherto Sumerologists have always taken it for granted that Inanna’s serpentine form has nothing whatsoever to do with the planet Venus, preferring instead to explain the cataclysmic imagery associated with the ophidian Inanna as a product of figurative language and metaphor. Yet this set of assumptions is at odds with the evidence at hand. An early temple-hymn translated by Sjöberg and Bergmann confirms that Inanna—as the planet Venus—was indeed conceptualized as a dragon:

“Your queen (is) Inanna...the great dragon...Through her the firmament is made beautiful in the evening.”<sup>335</sup>

The same idea is evident in another Neo-Sumerian temple hymn wherein Inanna/Venus is described as the “dragon of the ningingar.”<sup>336</sup> There, too, the goddess is explicitly identified with the planet Venus:

“Your queen (is) Inanna,...the great dragon of the ningingar, The great queen of heaven and earth, Inanna.”<sup>337</sup>

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<sup>334</sup> W. Hallo & J. van Dijk, *The Exaltation of Inanna* (New Haven, 1968), pp. 15-17.

<sup>335</sup> Å. Sjöberg & E. Bergmann, *The Collection of the Sumerian Temple Hymns* (Locust Valley, 1969), p. 36.

<sup>336</sup> See line 206 in “The temple hymns,” *ETCSL*. There Black points out that ningingar denotes a shrine dedicated to Inanna.

<sup>337</sup> Å. Sjöberg & E. Bergmann, *op. cit.*, p. 29.

As the Queen of Heaven, the planet Venus was venerated throughout the ancient Near East.<sup>338</sup>

Inanna's serpentine-form is difficult to reconcile with the current appearance and behavior of Venus, needless to say, for at no time does the planet ever present the image of a serpent or dragon, much less one rampaging about heaven while raining fire and destruction. Yet if Venus presented a comet-like form during the late prehistoric period the Sumerian descriptions of Inanna would be explained at one stroke and in a perfectly logical manner, insofar as comets have been compared to "dragon-stars" since time immemorial.<sup>339</sup>

The fact that skywatchers far removed from Mesopotamia likewise ascribed ophidian features to Venus confirms that there was indeed something about the appearance of the planet that led it to be conceptualized as a serpent. Various cultures in Mesoamerica, otherwise renowned for their veneration of Venus and the development of sophisticated astronomical calendars centered around that planet's synodic period, compared it to a great dragon or serpent. Thus, the natives of Yucatán knew Venus as the "plumed serpent star."<sup>340</sup> Venus was ascribed a serpentine form by indigenous cultures from Africa and South America as well, as I have documented.<sup>341</sup> The Karanga of South Africa, for example, said of the planet Venus that it "could also transform herself into a serpent."<sup>342</sup>

Granted that Inanna/Venus was conceptualized as a serpent-like form—and Ishtar herself was known as the "terrifying dragon of the gods"<sup>343</sup>—what, if anything, does this datum

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<sup>338</sup> C. Houtman, "Queen of Heaven," in K. van der Toorn et al eds., *Dictionary of Deities and Demons in the Bible* (Leiden, 1995), cols. 1278-1283. See also T. Jacobsen, *The Harps that Once...* (New Haven, 1987), p. 16.

<sup>339</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 113-144.

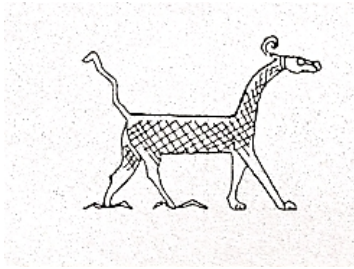
<sup>340</sup> B. Tedlock, "Maya Astronomy: What We Know and How We Know It," *Archaeoastronomy* 18 (1999), p. 55.

<sup>341</sup> E. Cochrane, *op. cit.*, pp. 122-124.

<sup>342</sup> H. von Sicard, "Karanga Stars," *NADA* 19 (1943), p. 50.

<sup>343</sup> B. Foster, *Before the Muses* (Bethesda, 1993), p. 240.

have to do with the spiraling form depicted in the MU<sub>3</sub>-sign? Certainly it is relevant to find that Inanna/Venus was described by the Sumerian word *muß*, signifying “serpent.”<sup>344</sup> Thus, in the Late Babylonian version of “The Exaltation of Inanna” the planet-goddess is said to approach the earth like a *muß*-serpent.<sup>345</sup> The same basic idea is evident in the Sumerian epic *Inanna and Ebi*, wherein the planet-goddess compares herself to the serpentine *muß-sag-kal*: “Like the FIRST SNAKE I come out of the mountains.”<sup>346</sup> The monster in question, according to Betty Meador and Daniel Foxvog, represented “the first or primary or archetypal snake.”<sup>347</sup> The *muß*-serpent, in turn, recalls the *muß**Δuß**βu* dragon, “the red (or fierce) dragon,” a notorious monster in Mesopotamian lore (see figure three).<sup>348</sup>



**Figure three**

In light of the fact that Inanna/Venus was expressly likened to a *muß*-serpent, the question arises as to whether there was some sort of relationship between this particular serpent-dragon and the MU<sub>3</sub>-sign used to denote Inanna/Venus. Mesopotamian iconography provides some support for this possibility. Recalling the fact that the MU<sub>3</sub>-poles were frequently placed alongside entrances or doors, often in pairs, it is relevant to note that *muß*-dragons performed a similar function in ancient cult, serving as apotropaic

<sup>344</sup> J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 182.

<sup>345</sup> See line 9 from Tablet 4. B. Hruška, “Das spätbabylonische Lehrgedicht ‘Inannas Erhöhung’,” *Archiv Orientalni* 37 (1969), p. 492.

<sup>346</sup> B. Meador, *Inanna: Lady of the Largest Heart* (Austin, 2000), p. 96.

<sup>347</sup> *Ibid.*, p. 203. F. Bruschweiler, *Inanna la déesse triomphante et vaincue dans la cosmologie sumérienne* (Leuven, 1988), p. 23, translates this phrase as “chief of serpents.”

<sup>348</sup> See the discussion in F. Wiggermann, “Mischwesen,” *Reallexikon der Assyriologie* 8 (Berlin, 1993-1997), pp. 222-245.

guardians at the entrances to sacred structures.<sup>349</sup> Thus an inscription of Nebuchadnezzar II speaks of the terrifying figures adorning the famous Ishtar Gate of Babylon: “At the sides of its gates I set up fierce bronze bulls and savage *mußΔußβu*.”<sup>350</sup>

As W. G. Lambert documented, this artistic motif can be traced throughout much of Mesopotamian history. As early as Gudea’s reign (ca. 2150 BCE) artistic scenes and inscriptions represent *mußΔußβu*-like dragons as gate-keepers.<sup>351</sup> A year-date of Naram-Sin of Eshnunna speaks of decorating a gate with *mußΔußβu*-dragons.<sup>352</sup> Obviously puzzled by the fact that early Sumerian temple hymns likewise mention *muß*-serpents in conjunction with temple-gates, Åke Sjöberg noted that the *muß*-serpent “seems to represent the embellishment and decoration at the gate of the temple.”<sup>353</sup>

This striking convergence in iconographical function provides a measure of support for the hypothesis that the spiraling volute-like structure commemorated in the MU<sub>3</sub>-sign is conceptually analogous to that ascribed to the *muß*-serpent. That the Sumerian scribes themselves recognized the connection is evidenced by an early hymn to the temple Ekishnugal, wherein it is written: “House, your MU<sub>3</sub> is a giant snake (*muß*).”<sup>354</sup>

In order to gain additional clarity on the celestial context of Inanna’s serpentine attributes, it is instructive to compare the Sumerian testimony with that from other

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<sup>349</sup> F. Wiggermann, “*mußΔußβu*,” *Reallexikon der Assyriologie* 8 (Berlin, 1993-1997), p. 460 stated: “From the late third millennium onwards m.’s [*mußΔußβu*-dragons] guarding doorways are inscriptionally attested.”

<sup>350</sup> W. Lambert, “The History of the *muß*-*Δuß* in Ancient Mesopotamia,” in U. Seidl ed., *l’animal, l’homme, le dieu dans le proche-orient ancien* (Leuven, 1985), p. 87.

<sup>351</sup> *Ibid.*, pp. 92-93. There Lambert writes: “The combination of these two animals to guard entrances thus attested in Gudea and Nebuchadnezzar II of Babylon is a striking testimony to continuity in ancient Mesopotamia of the use of these creatures.”

<sup>352</sup> J. Westenholz, *Legends of the Kings of Akkade* (Winona Lake, 1997), p. 189.

<sup>353</sup> See line 418 of “The temple hymns,” *ETCSL*: “On your awesome and radiant gate a decoration displays a horned viper and a *mußΔuß* embracing.” See also Å. Sjöberg & E. Bergmann, *The Collection of the Sumerian Temple Hymns* (Locust Valley, 1969), p. 69.

<sup>354</sup> Å. Sjöberg, *Der Mondgott Nanna-Suen* (Stockholm, 1980), p. 124: “Haus, dein *mùß* ist eine Riesenschlange...” The original wording here is *é mùß-zu muß-gal SUG-muß-a*. See also line 112 in “The temple hymns,” *ETCSL* where the translation is “Your platform is a great snake, a marsh of snakes.”



cultures. The sacred traditions from ancient Egypt are especially relevant here, being roughly contemporaneous in date. What we are looking for, ideally, is a stellar goddess who makes a habit of assuming the form of a fire-spewing serpent. Should such a goddess be found—and we won't have far to look—it will be important to determine if she bears any relationship to spiraling forms similar to that represented in the Sumerian MU<sub>3</sub>-graph.

### The Uraeus-Goddess

“Whoever wishes to understand ancient Egyptian culture, and especially its religion and way of thinking, must learn the language of images.”<sup>355</sup>

In ancient Egypt we are confronted with the only advanced civilization that has a written tradition comparable in antiquity to that of Mesopotamia. Unified under a common king as early as 3000 BCE, Egyptian culture was characterized by its conservative nature and remained essentially unchanged for the better part of three thousand years until the arrival of Alexander the Great.<sup>356</sup> This antiquity, coupled with an extensive corpus of religious texts dating to as early as 2350 BCE, makes Egypt a perfect testing ground to determine whether the disaster-bringing serpentine-goddess was unique to Mesopotamia.

Known by numerous different names and epithets—Hathor, Isis, Sakhmet, Wadjet, Wepset, among others—the Egyptian mother goddess is everywhere represented as a fire-spewing uraeus-serpent. It is Hathor, perhaps, who offers the most striking parallel to the Sumerian Inanna. Again and again Hathor is described as a raging warrior whose terrifying rampages threaten to destroy the world. A text known as the *Destruction of Mankind* finds Hathor being dispatched by Re to rain fire and destruction upon mankind:

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<sup>355</sup> E. Hornung, “Ancient Egyptian Religious Iconography,” in J. Sasson ed., *Civilizations of the Ancient Near East*, Vols. 3/4 (Farmington Hills, 1995), p. 1729.

<sup>356</sup> J. Assmann, *The Mind of Egypt* (Cambridge, 2002), p. 19 writes: “The unchanging fundamentals of its symbolic meaning-world extend across a period of three and a half thousand years, from 3200 B.C.E. to 300 C.E. This unbroken unity and sense of unchanging collective identity is surely without parallel.”

“Let go forth thine Eye, let it destroy for thee those who blaspheme with wickedness, not an eye can precede it in resistance...when it goeth forth in the form of Hathor. Went forth then this goddess, she slew mankind on the mountain.”<sup>357</sup>

Although this text is relatively late in date,<sup>358</sup> the same basic theme recurs throughout the three thousand years of Egyptian history. The raging mother-goddess is alluded to in numerous spells from the Pyramid and Coffin Texts, for example. Spell 316 from the Coffin Texts invokes the raging goddess as the “Eye of Horus”: “I am the fiery Eye of Horus, which went forth terrible, Lady of slaughter, greatly awesome...I am indeed she who shoots.”<sup>359</sup> In another spell fire and devastation are said to accompany the Eye’s rampage: “The fire will go up, the flame will go up...the fiery one will be against them as the Eye of Rê.”<sup>360</sup> Elsewhere it is said of the warring Eye-goddess: “Its flame is to the sky.”<sup>361</sup> Other passages speak of the hair raised from the raging Eye: “I raised up the hair from the Sacred Eye at the time of its wrath.”<sup>362</sup> In a text from Unis’s pyramid, the flame from the Eye is likened to a raging storm: “I will put flame in my eye, and it will encompass you and set storm among the doers of (evil) deeds.”<sup>363</sup>

In the so-called hymns to the royal crown from the Middle Kingdom (ca. 1600 BCE) the uraeus-goddess features prominently. The goddess’s epithets emphasize her incendiary nature:

“Exalted is your power, O Burning One, O Sated One, O Mighty One, Powerful, Skilful of Flames, Lady of the Sky, Mistress of the Two Lands O Eye of Horus, and his

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<sup>357</sup> E. Budge, *The Gods of the Egyptians, Vol. I* (New York, 1969), p. 392.

<sup>358</sup> It dates to the time of King Tut. See S. Quirke, *Ancient Egyptian Religion* (London, 1992), p. 164.

<sup>359</sup> CT IV: 98. R. Faulkner, *The Ancient Egyptian Coffin Texts, Vol. I* (Warminster, 1973-1978), p. 238.

<sup>360</sup> CT V: 264.

<sup>361</sup> CT III:343.

<sup>362</sup> CT IV: 232. In the *Papyrus of Ani*, similarly, it is written: “I raise up the hair at the time of storms in the sky...It is the right Eye of Ra in its raging against him after he hath made it to depart.” See E. Budge, *The Egyptian Book of the Dead* (London, 1901), pp. 36-37.

<sup>363</sup> PT 298-299.

guide...Lady of Eternity, Fiery One, O Red One, whose Flame burns, Serpent Uraeus, who guides the people, O Lady of Fire, O Searing One, O Devourer, O Scorching One...”<sup>364</sup>

The goddess Sakhmet is described in similar terms and is for all practical purposes interchangeable with Hathor. In the Bremner-Rhind papyrus, it is Sakhmet who protects the king and wards off his enemies as the raging Eye:

“Thou art (condemned) to this fire of the Eye of Re; it sends forth (?) its fiery blast against thee in this its name of Wadjet; it consumes thee in this its name of ‘Devouring Flame’; it has power over thee in this its name of Sakhmet; it is fiery against thee in this its name of ‘Glorious Serpent’.”<sup>365</sup>

The image of Sakhmet as a raging goddess is also attested among the texts discovered at Philae. Here, as elsewhere, Sakhmet is identified as the “Eye of Horus”:

“Sakhmet, the strong one (*wsrt*), is in Bigeh in her form as the Eye of Horus, the living [eye...] while [spreading fire (?)] with the flame when she goes round, while scorching the rebels with the heat of her mouth. She is the primeval snake (*ḥr t*).”<sup>366</sup>

In the texts from Edfu, Sakhmet is once again compared to a flame-throwing serpent and celebrated for her protective powers. The following passage is representative in this regard:

“O Sekhmet, Eye of Re, great of flame, Lady of protection who envelops her creator...O Sekhmet who fills the ways with blood, Who slaughters to the limits of all she sees,

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<sup>364</sup> A. Erman, *Hymnen an das Diadem der Pharaonen* (Berlin, 1911), p. 28. Translation by A. Roberts, *Hathor Rising* (Devon, 1995), p. 8.

<sup>365</sup> R. Faulkner, “The Bremner-Rhind Papyrus— IV,” *Journal of Egyptian Archaeology* 24 (1938), p. 45.

<sup>366</sup> Quoted from J. F. Borghouts, “The Evil Eye of Apophis,” *Journal of Egyptian Archaeology* 59 (1973), p. 136.

Come towards the living image, the living Hawk, Protect him, and preserve him from all evil.”<sup>367</sup>

Even from this cursory survey of the rich and multifaceted Egyptian traditions it is evident that the Eye-Goddess and Inanna/Venus share numerous mythological attributes in common. In both cultures, the mother goddess is conceptualized as a raging serpentine monster, raining fire and destruction from the sky. As Sakhmet was invoked as the primeval snake—*°r’t*—so too was Inanna invoked as *muß-sag-gal*, the first or archetypal snake.<sup>368</sup> And as Sakhmet “fills the ways with blood,” so too was it said of Inanna: “She filled the wells of the nation with blood.”<sup>369</sup>

In light of such striking parallels the question arises as to whether the Egyptian Eye-goddess has any relationship to the planet Venus? According to Rolf Krauss, the Eye of Ra/Horus is to be identified with the planet Venus.<sup>370</sup> If Krauss’s identification can be confirmed—and Talbott and I offered the same identification a decade before him<sup>371</sup>—this would support the hypothesis that the mythological imagery surrounding Inanna and Hathor/Sakhmet likely traces to ancient conceptions involving Venus.

### The Uraeus-crown

For Jan Assmann, the uraeus-crown was “the most distinctive symbol of kingship.”<sup>372</sup> Why this should be the case is not addressed nor, for that matter, is it evident why a fire-spewing serpent should come to serve as the pharaoh’s royal head-band. Yet Assmann’s

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<sup>367</sup> Quoted from A. Roberts, *Hathor Rising* (Devon, 1995), p. 13.

<sup>368</sup> B. Meader, *Inanna: Lady of the Largest Heart* (Austin, 2000), p. 203.

<sup>369</sup> Line 131 from “Inana and ĩu-kale-tuda,” *ETCSL*.

<sup>370</sup> R. Krauss, “The Eye of Horus and the Planet Venus: Astronomical and Mythological References,” in J. Steele & A. Imhausen eds., *Under One Sky* (Münster, 2002), pp. 193-208.

<sup>371</sup> E. Cochrane & D. Talbott, “When Venus was a Comet,” *Kronos* XII:1 (1987), pp. 14-16.

<sup>372</sup> J. Assmann, *The Mind of Egypt* (Cambridge, 1996), p. 323.

claim can hardly be denied. Carol Andrews offered a similar opinion in her analysis of Egyptian symbolism:

“From the earliest dynasties the upreared cobra, the uraeus, was the emblem of royalty, worn on pharaoh’s forehead to signify his kingship and divinity. As a goddess she was the eye of the sun, spitting fire at the king’s enemies. Called in Egyptian *icert* (iaret) or *m’n* (mehen), ‘the Coiled One’, the uraeus was among the amulets depicted in both the MacGregor Papyrus and the Osiris complex at Dendera.”<sup>373</sup>

The central importance of the uraeus-serpent in Egyptian royal ideology is especially conspicuous in coronation rites. As strange as it must appear to the modern mind, the king’s coronation was not considered ratified or “effective” until the uraeus-serpent had been placed on his head as a crown. Barbara Lesko summarized these curious rites as follows:

“Certainly the king’s coronation was not complete until the uraeus was placed on his brow. Both King Horemheb of the Eighteenth Dynasty and Ramses III of the Twentieth mention this rite in their inscriptions.”<sup>374</sup>

It is important to underscore the fact that it was the mother goddess herself who, as the fire-spitting uraeus, formed the crown of kingship. T. Rundle Clark, among others, has emphasized the archetypal significance of the uraeus-serpent in this regard:

“The cobra was the protector of the crown and is shown attached to the front, just above the king’s forehead. Hence we get the fundamental symbol equation of Egyptian religion: Eye=Flame=Destructive Goddess=Cobra=Crown. This holds true from the Pyramid Texts to the end of the civilization.”<sup>375</sup>

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<sup>373</sup> C. Andrews, *Amulets of Ancient Egypt* (Austin, 1994), pp. 75-76.

<sup>374</sup> B. Lesko, *The Great Goddesses of Ancient Egypt* (Norman, 1999), p. 75.

<sup>375</sup> R. T. Clark, *Myth and Symbol in Ancient Egypt* (London, 1959), p. 220.

Clark's conclusion warrants close scrutiny. Unquestionably correct, it begs the question: Why would a dragon-like goddess be identified with the crown of kingship? A satisfactory answer to this question will revolutionize our understanding of the archaic cult of the mother goddess—and with it the recent history of the solar system.

If we are to judge by the Egyptian testimony on the matter, the symbolism attached to the uraeus-serpent as the Eye and/or crown of kingship would appear to find its divine prototype—and probable historical origin—in the singular events associated with the crowning of Horus, the proverbial King of the Gods. As delineated in the Pyramid Texts, the uraeus-serpent came to adorn the forehead of Horus as the crown of kingship during the decidedly catastrophic events attending Creation. A Pyramid Text devoted to the red crown (*Nt*-crown), wherein the uraeus-serpent is addressed as Ikhet, is instructive here:

“He has come to you, O *Nt*-crown; he has come to you, O Fiery Serpent; he has come to you, O Great One; he has come to you, O Great of Magic, being pure for you and fearing you...He has come to you, O Great of Magic, for he is Horus encircled with the protection of his Eye, O Great of Magic...Ho, Crown great of magic! Ho Fiery Serpent! Grant that the dread of me be like the dread of you; Grant that the fear of me be like the fear of you...If Ikhet the Great has borne you, Ikhet the Serpent has adorned you; If Ikhet the Serpent has borne you, Ikhet the Great has adorned you, Because you are Horus encircled with the protection of his Eye.”<sup>376</sup>

Evident here is a central tenet of archaic Egyptian religion: The dread-inspiring mother goddess, alternately identified as “Fiery Serpent” and “Eye,” once encircled Horus and thereby provided him with the crown of kingship. Thus it is that the word *i/akhet*—in addition to identifying the serpent-goddess—could also signify a crown or diadem.<sup>377</sup>

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<sup>376</sup> *PT* 194-198.

<sup>377</sup> S. Mercer, *The Pyramid Texts in Translation and Commentary, Vol. II* (New York, 1952), p. 184.



**Figure four**

Figure four shows the predynastic ruler Narmer wearing the Red Crown as ruler of Egypt. In addition to being among the most familiar symbols from ancient Egypt, the Red Crown is also among the most enigmatic. Attested in rock art from the fourth millennium BCE (see figure five), the Red Crown is distinguished by the curious “coil” spiraling upwards from the crown:

“It is the oldest hieroglyph known, appearing on a pot dating from the middle of the fourth millennium; but it is hard to say whether it already had a value as a code or whether it was simply a drawing of the object.”<sup>378</sup>



**Figure five**

<sup>378</sup> M. Betrò, *Hieroglyphics* (New York, 1996), p. 194.

Egyptologists readily concede their inability to explain either the origins or symbolic significance of the Red Crown. Witness the observation of Toby Wilkinson:

“There is, as yet, no satisfactory explanation for the origin of the two principal crowns, the red and white...A sherd from a large black-topped red-ware vessel of late Naqada I date, from the site of Naqada itself, bears a representation of the red crown in relief...The shape of the crown is quite distinctive, but again its symbolic meaning is unknown...There is an obscure passage in the Pyramid Texts of Unas which may refer to the curly part of the red crown, but it remains poorly understood.”<sup>379</sup>

A decisive clue to the symbolism in question is offered by the fact that, on a label of King Serpent (Djer) found at Sakkara, the uraeus-serpent substitutes for the Red Crown. As Alan Gardiner observed, this substitution of hieroglyphs hints at a fundamental affinity or synonymy between the two hieroglyphs.<sup>380</sup> Indeed, it is our view that the spiraling curl adorning the Red Crown is simply the uraeus-serpent in its angry or “rearing” phase.

Comparing the Egyptian symbolism with that from Mesopotamia, it is evident that the spiraling volute presented by the red crown’s rearing uraeus-serpent bears a marked resemblance to the spiraling volute depicted in the MU<sub>3</sub>-sign associated with Inanna/Venus. It is our opinion, in fact, that the two symbols represent analogous structural forms and commemorate a common celestial prototype—specifically, a spectacular comet-like phase in the recent history of the planet Venus.

In light of the intimate relationship between the uraeus-serpent and the crown of kingship in ancient Egypt, the question arises as to whether the MU<sub>3</sub> graph was associated with the royal crown in ancient Mesopotamia? Here we would call attention to the Sumerian word MU<sub>3</sub>=su $\Delta$ <sub>10</sub>, signifying a luminous crown or headdress of some sort.<sup>381</sup>

According to “Ninurta’s Journey to Eridug,” the MU<sub>3</sub>-crown served as a proverbial sign

<sup>379</sup> T. Wilkinson, *Early Dynastic Egypt* (London, 2001), pp. 192-193.

<sup>380</sup> A. Gardiner, “The Personal Name of King Serpent,” *Journal of Egyptian Archaeology* 44 (1958), p. 38.

<sup>381</sup> J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 239.



of sovereignty: “[Ninurta] put on a crown as a sign of kingship, tied on a lapis suh as a sign of enship.”<sup>382</sup>

A connection between the MU<sub>3</sub>-crown and sovereignty is also evident in “Enki and the World Order”: “To bring about the birth of a king, to tie (onto him) the legitimate [MU<sub>3</sub>-crown], to bring about the birth of an en-priest(ess) to set a crown (upon his/her head), it is in her (Nintu’s) power.”<sup>383</sup> As is obvious from Nintu’s function here, there was thought to be an intimate connection between the mother goddess and the crown of kingship in ancient Mesopotamia. Thus it is that Nintu, as the “Lady of the diadem,” placed the crown on the king in Old Babylonian investiture rituals.<sup>384</sup>

That the MU<sub>3</sub>-crown in question had a celestial prototype is certain. Thus, in an early temple hymn the sun-god Utu is said to tie “the mûß-crown (around his head).”<sup>385</sup> Utu is also described as adorned with a lapis-lazuli diadem (MU<sub>3</sub>= su $\Delta$ <sub>10</sub>) in the early hymn “Gilgamesh and Huwawa.”<sup>386</sup>

Yet the MU<sub>3</sub>-crown in question is elsewhere mentioned in conjunction with Inanna as the planet Venus. Witness the following temple hymn, portions of which were quoted earlier:

“Your queen (is) Inanna, ...(She carries) the... mûß-crown (lustrous as) lapis lazuli, the great dragon of the ningingar, The great queen of heaven and earth, Inanna.”<sup>387</sup>

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<sup>382</sup> P. Steinkeller, “Inanna’s Archaic Symbol,” in J. Braun et al eds., *Written on Clay and Stone* (Warsaw, 1998), p. 94. See lines 10-12 (Segment B) of “Ninurta’s journey to Eridug,” *ETCSL*.

<sup>383</sup> Lines 197-198 as quoted in P. Steinkeller, *op. cit.*, p. 94.

<sup>384</sup> T. Jacobsen, *The Treasures of Darkness* (New Haven, 1976), p. 109.

<sup>385</sup> Å. Sjöberg & E. Bergmann, *The Collection of the Sumerian Temple Hymns* (Locust Valley, 1969), p. 46. See line 490 in “The temple hymns,” *ETCSL*.

<sup>386</sup> Line 29 in “Gilgamesh and Huwawa (Version B),” *ETCSL*.

<sup>387</sup> Å. Sjöberg & E. Bergmann, *op. cit.*, p. 29.

To summarize: The natural object referenced by the MU<sub>3</sub>-sign employed to denote the Sumerian goddess Inanna has long eluded scholars. Steinkeller's suggestion that the MU<sub>3</sub>-sign has some reference to a "crown-like" object represents a step in the right direction. Yet this interpretation will never explain the terrifying numen that was Inanna, who, from the very outset of her appearance in Sumerian literature, was described as an awe-inspiring celestial power, raining fire and destruction from above. The fact that Inanna was early on identified with the planet Venus and explicitly likened to a fire-spewing dragon or mu<sub>3</sub>-serpent is prerequisite to a proper interpretation of the MU<sub>3</sub>-sign. As we have documented, the mu<sub>3</sub>-serpent and the MU<sub>3</sub>-pole share an analogous function in sacred iconography as numen-laden guardians of sacred structures or entrances. This striking convergence in iconographical function—precisely paralleled in the sacred iconography associated with the Egyptian uraeus-serpent, which likewise stood alongside temple doors to ward off intruders<sup>388</sup>—provides compelling support for the hypothesis that the natural form commemorated in the MU<sub>3</sub>-sign was conceptualized as a mu<sub>3</sub>-dragon, among other things. Indeed, the evidence presented here is consistent with the hypothesis that the Inanna-symbol, like Inanna herself, traces to a celestial prototype—most likely some sort of comet-like apparition associated with the planet Venus, however that apparition is to be explained from an astronomical standpoint.

The thesis put forward here will also resolve one of the most perplexing problems with respect to Inanna's early symbol—namely, the fact that it disappeared very early in Sumerian history.<sup>389</sup> Thus Steinkeller reports that "since no certain depictions of it are extant from later periods, the active life of this symbol in cult apparently did not extend beyond Uruk times."<sup>390</sup> Yet why should this be if, as we are asked to believe, the symbol

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<sup>388</sup> S. Quirke, *Ancient Egyptian Religion* (London, 1992), p. 116.

<sup>389</sup> A. Green, "Ancient Mesopotamian Religious Iconography," in J. Sasson ed., *Civilizations of the Ancient Near East, Vols. 3/4* (Farmington Hills, 1995), p. 1840 makes it disappear with the Early Dynastic period. E. C. L. During Caspers, "The Gate-Post in Mesopotamian Art...", *Jaarbericht ex Oriente Lux* (1971/2), p. 219 writes: "Thus it would appear that towards the close of the third millennium B.C. the gate-post symbol, except for a few isolated cases..., had gone out of fashion, no longer representing a religious concept which it had symbolized for almost a millennium."

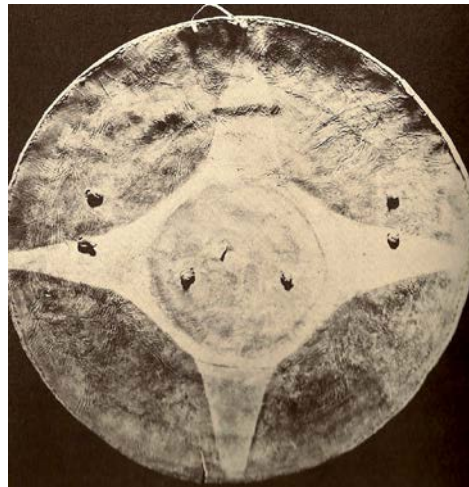
<sup>390</sup> P. Steinkeller, *op. cit.*, pp. 87-88.

represented a simple crown or head-band? Did crowns or head-bands suddenly go out of fashion in Sumerian cult? Hardly. Rather, the answer to this conundrum would appear to be as follows: The natural form referenced by the MU<sub>3</sub>-sign—i.e., the spiraling comet-like apparition presented by the planet Venus—disappeared from the ancient skies at some point between prehistoric times and the end of the Early Dynastic period. As the planet Venus settled into a more stable orbit, its heaven-spanning tail disappeared together with its terrifying aspect. At that decisive juncture in history new symbols were devised to describe Sumer's greatest goddess.

## 7. The Great Star

“It is time to decide to pay more serious attention to the *sources* and to put an end to our suppression, out of prejudice, of half of the awe-inspiring things they contain.”<sup>391</sup>

Stars were monitored and venerated by most Amerindian tribes. Of all the stars, the Morning Star stands out for its conspicuous role in sacred mythology and ritual. Less well known, but evident nevertheless, is the Star’s importance in the religious iconography of the various Amerindian cultures. How the mythological traditions interface with, or help explain, the specific iconography associated with the Morning Star has scarcely been addressed to date but this would appear to be a ripe field for research and analysis. It is this question that we will explore in this chapter.



**Figure one**

Among the images consistently associated with the mythical Morning Star or “Great Star” is that depicted in figure one, taken from a Pueblo shield.<sup>392</sup> As it turns out, the image in question figures prominently in the art of various indigenous cultures across the American Southwest, being especially popular among the Hopi,<sup>393</sup> Jemez Pueblo,<sup>394</sup> and

<sup>391</sup> W. Otto, *Dionysus* (Bloomington, 1965), p. 13.

<sup>392</sup> The image is taken from Barton Wright, *Pueblo Shields* (Flagstaff, 1976), p. 50.

<sup>393</sup> D. Miller, *Stars of the First People* (Boulder, 1997), p. 185.

Navaho.<sup>395</sup> The same image is attested across the North American continent, appearing among the sacred symbols of the Plains Indians, such as the Skidi Pawnee,<sup>396</sup> Blackfoot, and Crow;<sup>397</sup> among the Eastern Woodland Indians;<sup>398</sup> and among the indigenous cultures of the Pacific Northwest.<sup>399</sup> Early examples of the same basic image appear on prehistoric O'otam bowls from the American Southwest.<sup>400</sup> Far from being unique to North America, analogous stellar-forms occur around the inhabited globe and are attested from as far afield as Mesopotamia and Polynesia.<sup>401</sup> Figure two, for example, shows a four-pointed star from an early cylinder seal from Mesopotamia (circa 1800 BCE).<sup>402</sup>



**Figure two**

<sup>394</sup> See figure three in J. Sando, "Jimez Pueblo," in A. Ortiz ed., *Handbook of North American Indians: Southwest, Vol. 3* (Washington, 1979), p. 424.

<sup>395</sup> See the picture of Manuelito Segundo in R. Williamson, *Living the Sky* (Norman, 1984) opposite page 176.

<sup>396</sup> For a classic example of the symbol see the hat worn by the Pitahawirata chief Captain Jim in V. Del Chamberlain, *When Stars Came Down to Earth* (Los Altos, 1982), p. 109. See also M. Naylor, *Authentic Indian Designs* (New York, 1975), p. 133.

<sup>397</sup> T. McCleary, *The Stars We Know: Crow Indian Astronomy and Lifeways* (Prospect Heights, 1997), p. 35.

<sup>398</sup> M. Naylor, *op. cit.*, p. 14.

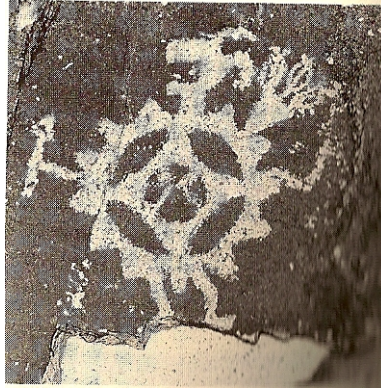
<sup>399</sup> *Ibid.*, p. 120.

<sup>400</sup> See figure two in C. Di Peso, "Prehistory: O'otam," in A. Ortiz ed., *Handbook of North American Indians: Southwest, Vol. 3* (Washington, 1979), p. 94.

<sup>401</sup> See figure seventeen from Wallis and Futuna in R. Jewell, *Pacific Designs* (London, 1998).

<sup>402</sup> Adapted from L. Werr, *Studies in the Chronology and Regional Style of Old Babylonian Cylinder Seals* (Malibu, 1988), figure IV.

The same image is also attested in Amerindian rock art. Figure three is an Anasazi petroglyph from Santa Fe, New Mexico.<sup>403</sup>



**Figure three**

Figure four shows a Piro rock painting.<sup>404</sup> Other examples appear on the spectacular rock face at San Cristobal near Santa Fe, New Mexico.<sup>405</sup>



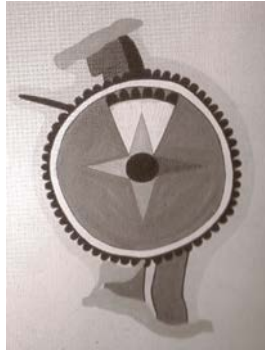
**Figure four**

<sup>403</sup> See figure 3.13.c in P. Schaafsma, *Warrior, Shield, and Star* (Santa Fe, 2000), p. 46. See also the illustrations opposite page 176 in R. Williamson, *Living the Sky* (Norman, 1984).

<sup>404</sup> See figure 3.17.b in P. Schaafsma, *op. cit.*, p. 54.

<sup>405</sup> See figure seven in V. Del Chamberlain & P. Schaafsma, "Origin and Meaning of Navaho Star Ceilings," in V. del Chamberlain et al eds., *Songs From the Sky* (Leicester, 2005), p. 88.

The same image appears frequently in Kiva mural paintings. Figure five shows a Pueblo shield from Kiva 2 at Pottery Mound in New Mexico.<sup>406</sup> According to Polly Schaafsma, this early Classic period site was occupied between A.D. 1325 and 1450.<sup>407</sup>



**Figure five**

Figure six shows a four-pointed star on a shield from the so-called Jeddito (Hopi) murals at Kawaika-a (Test 5, Room 4).<sup>408</sup> Of the imagery depicted on Pueblo shields in the rock art of the Southwest Indians, Schaafsma had this to say:

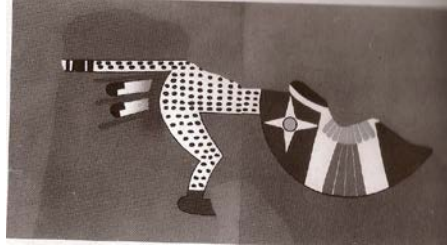
“Although the meaning of the designs on many of the Pueblo IV shields is not always clear from today’s perspective, others incorporate extant symbolism of the most powerful supernaturals associated with Pueblo warfare, supreme sources of strength and protection...Stars are one of the most frequently encountered symbols on rock-art shields. The four-pointed and often feathered Pueblo star with an expanding center is a multivalent symbol embodying several interrelated meanings and implications of war. The motif is by no means confined to shields, however, and it occurs in rock-art panels as an element in its own right, and occasionally even as a mask...The Morning Star was especially popular on shields during Pueblo IV and has persisted in use on historic shields.”<sup>409</sup>

<sup>406</sup> See figure 3.30a in P. Schaafsma, *op. cit.*, p. 76.

<sup>407</sup> *Ibid.*, p. 73.

<sup>408</sup> Adapted from P. Schaafsma, *op. cit.*, p. 92.

<sup>409</sup> *Ibid.*, p. 113.



**Figure six**

What are to make of the stellar image in question? The most striking feature of the so-called “Great Star” image is the presence of a dark orb at the center or “core” of a four-pointed star. As a general rule the central orb is painted red or darker than the rays of the star.

As for which celestial body is being referenced by the four-pointed “Great Star,” there would appear to be a general consensus among modern scholars that it represents the planet Venus. Thus, in a discussion of the notorious human sacrifices that the Skidi Pawnee offered to the Morning Star, the astronomer John Carlson offered the following pronouncement:

“The war-related context of these sacrifices is indisputable and current scholarship argues that the Star symbol was most always understood as referring specifically to Venus as Morning and/or Evening Star.”<sup>410</sup>

Yet there’s a problem here: How are we are to understand the reddish orb that typically appears in the center of the four-pointed star? Carlson claims that it represents the Sun. Thus, with respect to the Pueblo shield depicted in figure one, Carlson opines that it shows “the most common form of the Southwestern four-pointed Great Star symbol and the Sun in center.”<sup>411</sup> By this reasoning, figure one shows a conjunction between the Sun and the planet Venus. Yet this interpretation of the image, it must be said, doesn’t make

<sup>410</sup> J. Carlson, “Transformations of the Mesoamerican Venus Turtle Carapace War Shield: A Study in Ethnoastronomy,” in V. del Chamberlain et al eds., *Songs From the Sky* (Leicester, 2005), p. 116.

<sup>411</sup> *Ibid.*, p. 115.



much sense from an astronomical standpoint insofar as the Sun can never appear in inferior conjunction with Venus. Nor, for that matter, can the current Sun ever appear as a central orb set within a larger star.

An alternative hypothesis would understand the “Great Star” image as abstract in design—as a juxtaposition of otherwise unrelated stellar forms. Yet this hypothesis ignores the fact that the image in question was expressly identified as the Morning Star and has close structural parallels elsewhere (the “Great Star” was represented by a four-cornered star in Mesoamerica as well, as we will document below). Indeed, the mere fact that a darker orb is so often depicted within the center of a four-pointed star suggests that we have to do with some memorable or readily observable celestial phenomenon—a conjunction of planets, for example—rather than an abstract design.

It is here that ancient mythological traditions can help elucidate the Amerindian artworks and symbols. Certainly it is relevant to find that various Amerindian cultures described the mythical Morning Star as red in color. This was the case among the Skidi Pawnee, Cheyenne, Osage, Delaware, Snuqualmi,<sup>412</sup> and Zuni, among others. The testimony of the Skidi is exemplary on this score. James Murie offered the following summary of the Skidi traditions surrounding Morning Star:

“The first one he [the Great God Tirawahat] placed in the heavens was Morning Star...This being was to stand on a hot bed of flint. He was to be dressed like a warrior and painted all over with red dust. His head was to be decked with soft down and he was to carry a war club. He was not a chief, but a warrior. He was to follow up all other stars and was to have greater powers than any other god in the heavens. Through him people were to be created and he would demand of the people an offering of a human being. He was to preside over one council of the gods and was to replenish the fire for his brother,

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<sup>412</sup> H. Haeberlin, “Mythology of Puget Sound,” *Journal of American Folklore* 37 (1924), p. 375.

Sun. He was also to be the one great power on the east side of the Milky Way. This is Mars, *u-pirikucu*, (literally, ‘big star’), or the god of war.”<sup>413</sup>

The Pawnee priest Tahirussawichi likewise called attention to Morning Star’s red color: “The Morning Star is like a man; he is painted red all over.”<sup>414</sup>



**Figure seven**

As was the case with many Amerindian cultures, the Skidi traced their origins to events involving the respective stars (see chapter three). For the Skidi, the mythical Morning Star was revered as a tribal ancestor or culture hero who had taught the Indians their way of life. As the prototypical male power, it was Morning Star who served as a patron of war and instructed the ancestors in how to use the fire-drill and make fire. (Figure seven shows a Pawnee chief with a headdress featuring a four-pointed star with a red disc in the middle).

<sup>413</sup> *Ibid.*, p. 38.

<sup>414</sup> H. Alexander, “North American Mythology,” in L. Gray ed., *The Mythology of All Races*, Vol. 10 (Boston, 1917), p. 93.

It is significant to note that the Skidi expressly distinguished the mythical Morning Star from the planet Venus.<sup>415</sup> Indeed, the Skidi identified the mythical Morning Star with the planet Mars and it was his “marriage” to Venus that set Creation in motion. In summarizing the events in question, Ralph Linton stated simply “The Morning Star married the Evening Star.”<sup>416</sup> This prototypical conjunction of planetary powers was reflected in Skidi rituals reenacting Creation:

“The Skiri also conceive of the firesticks as male and female. The idea is that the kindling of fire symbolized the vitalizing of the world as recounted in the creation. Specifically, the hearth represents the Evening Star and the drill the Morning Star in the act of creation.”<sup>417</sup>

Similar conceptions are attested among the Cheyenne of Montana. The Cheyenne Morning Star was renowned as a great warrior and culture hero. Like the Skidi Morning Star, he was credited with introducing the fire-drill.<sup>418</sup> And as was the case among the Skidi, the mythical Morning Star was described as distinctly red in color: “He was painted red all over.”<sup>419</sup>

For the Zuni Pueblo of New Mexico, the mythical Morning Star was recalled as a mighty warrior and culture hero.<sup>420</sup> An association between Morning Star and the color red is also apparent in Zuni lore<sup>421</sup> and it is known, moreover, that the planet Mars could serve

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<sup>415</sup> See the discussion in E. Cochrane, *Starf\*cker* (Ames, 2006), pp. 12-18.

<sup>416</sup> R. Linton, “The Sacrifice to the Morning Star by the Skidi Pawnee,” *Field Museum of Natural History Anthropological Leaflets* 6 (1923), p. 5

<sup>417</sup> J. Murie, *op. cit.*, p. 40.

<sup>418</sup> G. Grinnell, “Some Early Cheyenne Tales,” *The Journal of American Folk-Lore* 20 (1907), p. 171.

<sup>419</sup> G. Grinnell, “Some Early Cheyenne Tales: II,” *The Journal of American Folk-Lore* 21 (1908), p. 290.

<sup>420</sup> E. Parsons, *Pueblo Indian Religion*, Vol. 2 (Chicago, 1939), p. 963.

<sup>421</sup> P. Schaafsma, *op. cit.*, p. 146.

as the Morning Star.<sup>422</sup> Interestingly, during the New Year ceremony celebrating Creation a new fire was drilled at the first appearance of the Morning Star.<sup>423</sup>

There is a wealth of evidence that the planet Mars, rather than Venus, was the “Great Star” celebrated in Amerindian myth and art. In the important study *When Stars Came Down To Earth* (1982), the astronomer Von Del Chamberlain conducted an extensive analysis of the Skidi traditions with respect to the stars. As he documented, various anthropologists familiar with Skidi lore, such as George Dorsey, Gene Weltfish, Clark Wissler, and Ralph Linton concluded that Mars was the mythical Morning Star. The only astronomer to work directly with the Skidi—Forest Moulton—likewise pointed to the red planet as the celestial prototype for the Morning Star:

“Perhaps Moulton’s brief comment is the most significant of all with regard to the identity of the true Skidi Morning Star. Moulton was thoroughly familiar with the planets and stars, and his information was acquired directly from Pawnee informants while they were observing the sky...Apparently Moulton discussed Mars with his informants and concluded that it was the best candidate for the Morning Star. This is the only opinion we have which came from an astronomer who had the benefit of interviews with Pawnee people.”<sup>424</sup>

In his analysis Del Chamberlain emphasized the intimate relations between Mars and Venus in Skidi lore. According to him, a conjunction of the two planets was the central theme of the Skidi myth of Creation:

“Watching the sky the way the Skidi might have seen it convinced me that the planets Venus and Mars are the key to understanding the Skidi creation concept, and that Mars

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<sup>422</sup> B. Tedlock, “Zuni Sacred Theater,” *American Indian Quarterly* 7 (1983), p. 100.

<sup>423</sup> E. Parsons, *op. cit.*, p. 576.

<sup>424</sup> V. Del Chamberlain, *op. cit.*, p. 89.

was the true Skidi Morning Star...The conjunctions of Venus and Mars do seem to be the key to the Skidi concept of celestial parentage.”<sup>425</sup>

With regard to the planetary identification of the “Great Star,” it is instructive to note that a number of otherwise distinct and widely separated Amerindian tribes denoted the mythical Morning Star by a name that signified “red” as well as “great.” Such was the case amongst the Delaware<sup>426</sup> and Osage,<sup>427</sup> for example.

There is compelling evidence that similar conceptions prevailed in Mesoamerica. There too the Morning Star was commonly known as “Great Star” and, among the Yucatec Maya at least, the adjective in question (*chac*) signified “red” as well as “great.”<sup>428</sup> In the Dresden Codex, for example, glyphs signifying “Great/Red Star”—T109.T510b—depict a four-rayed star offering a close resemblance to our figure one.<sup>429</sup> The anthropologist Brian Stross called attention to the puzzle presented by the fact that the Maya apparently described the planet Venus as red in color (Stross, like most Mayanists, would identify the Morning Star in question with the planet Venus):

“The planet Venus is associated with the color red among the Maya of Mexico, for its name is given, even in Maya dictionaries from early Colonial times, as ‘red/great star’. The same association holds for the Maya of Classical Times (300-900 AD) and of the Post-Classic period (900-1400 AD). We know this because the Classic and Post-Classic Maya had a glyphic writing system, and in it the glyph collocation representing Venus includes the glyph for the color red. More specifically, the Lamat-Venus glyph (T510) is the glyph of the planet Venus, an identification accepted by virtually every epigrapher concerned with Maya glyphs. The basic form of the glyph—a circled cross with a circlet in each quadrant—is so widespread that it has the meaning ‘Morning Star’ (which we

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<sup>425</sup> *Ibid.*, p. 84.

<sup>426</sup> D. Miller, *Stars of the First People* (Boulder, 1997), p. 56.

<sup>427</sup> *Ibid.*, p. 234.

<sup>428</sup> S. Milbrath, *Star Gods of the Maya* (Austin, 1999), p. 160.

<sup>429</sup> Dresden Codex 50. See here the illustration in C. Villacorta & J. Villacorta, *The Dresden Codex* (Walnut Creek, 1992), p. 100.

usually interpret as Venus) among the Tarahumara of Northern Mexico. The name that some Mayans have for Venus appears to have been borrowed by Tarascans (as far away as Michoacan, Mexico). More relevant to the Maya area:

‘The red prefix is usually found with the Venus glyph (fig. 42, 31, 33), but rarely on the monuments (fig. 54, 5). One is reminded that one of the names for Venus was *chac ek*, ‘red star’ or ‘giant star’.’

The glyphic prefix for red given with the Venus glyph; a Yucatec Maya name for Venus with a focal meaning of ‘red’. This is persuasive evidence that the color red is connected with Venus. To be sure, the Yucatec term *chak* means both ‘red’ and ‘great, giant’ as well as ‘intense’; and it is also the case that such Maya names for Venus as Tzotzil *muk’ta k’anal*, literally ‘large star’, and Chuj *niwan k’anal*, literally ‘large star’ have no apparent connection with red. However, the colonial Tzeltal term *tzajal ek*, ‘red star’, refers to ‘red’ and not to ‘large’, and presumably names Venus. Furthermore, ‘red’ and ‘great’ appear to have some color symbolic affinity, for the terms are not only homophonous in Yucatec; they are homophonous in a number of other languages as well; e.g., Chinese *hong* (rising tone)—‘red, great, grand, magnificent’ and Russian *krasni* (or *krasnoy*)—‘red, magnificent’.

Connecting Venus with the color red is surprising, of course. Venus, if it could be said to have a color, would have to be described as silvery. Only Mars, of the planets, could be described as ‘red’ or ‘reddish’. Oddly, Venus was given by the Maya a Martian color attribute; and further, the death and calamity distributed by Venus, with its apparently warlike nature, again suggests the planet Mars from the perspective of Old World symbolism.”<sup>430</sup>

The fact that this curious homophony between “great” and “red” is found in conjunction with the Morning Star among speakers of the Algonquian (Delaware), Siouan (Osage),

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<sup>430</sup> B. Stross, “Venus and Sirius: Some Unexpected Similarities,” *Kronos* XII:1 (1987), pp. 26-27.

Caddoan (Skidi Pawnee), and Mayan (Yucatec) languages suggests this sampling represents but the tip of the proverbial iceberg and that similar homophonies are (or were) present elsewhere and may well be much more extensive than hitherto realized.

Considered alongside the Skidi Pawnee and Cheyenne testimony describing the mythical “Morning Star” as red in color, this linguistic evidence strongly supports a Martian identification for the “Great Star” in question.

The same conclusion is supported by the otherwise inexplicable fact that in each and every culture sampled thus far—Zuni, Osage, Delaware, Aztec, Maya—the “Great Star” in question was conceptualized as masculine in nature, thereby paralleling the Skidi traditions with respect to the Morning Star Mars. While this conforms precisely with the universal perception of the planet Mars as a masculine warrior, it contrasts sharply with the abundant ancient testimony that Venus was typically conceptualized as the “Queen of Heaven” and hence feminine in nature.

The evidence enumerated here suggests that a reappraisal of the Maya testimony with respect to the Morning Star may well be in order. Indeed, as I have argued elsewhere, there is much reason to believe that the mythical Morning Star of Mesoamerican lore was originally the planet Mars (or at least Mars and Venus in conjunction).<sup>431</sup> Of the wealth of evidence that can be brought to bear on this important question, perhaps the most compelling is the testimony describing the Morning Star as the “first light” to appear at Creation. In the *Codex Telleriano Remensis*, a colonial text providing commentary on prehispanic paintings and sacred lore, it is stated that Quetzalcoatl—as the Morning Star—was regarded as the first “light” to appear at Creation.<sup>432</sup> The Codex also includes the following gloss offered by an anonymous scribe: “Properly speaking, the first light that appeared in the world.”<sup>433</sup>

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<sup>431</sup> See the discussion in E. Cochrane, *Starf\*cker* (Ames, 2006), pp. 98-114.

<sup>432</sup> E. Keber, *Codex Telleriano Remensis* (Austin, 1995), p. 175.

<sup>433</sup> *Ibid.*, p. 262.

The Codex Vaticano Latino contains a very similar report regarding Quetzalcoatl's alter ego—Tlahuizcalpantecuhtli. There it is written:

“This was the Dawn god or the god of Light when day wants to come in...at daybreak. They say that it was created before the sun.”<sup>434</sup>

Morning Star's reputation as the “first star” to appear at Creation offers a striking parallel to the Skidi report that the planet Mars, as Morning Star, was the first star to appear in heaven. Recall again Murie's account of Creation: “The first one he placed in the heavens was Morning Star.”<sup>435</sup>

It is also significant to find that Quetzalcoatl is depicted working the fire-drill, a tool he is said to have invented at the Dawn of Time while acting as the Mixtec culture hero. Yet this is exactly the invention ascribed to the Skidi Morning Star Mars. The fact that Australian skywatchers likewise conceptualized the red planet as the “fire-drill” star confirms that we have to do with a very widespread belief-pattern and offers compelling support for the fundamental reliability of the sacred astronomical lore of the Skidi and Aztecs.<sup>436</sup>

To return to the four-pointed star which forms the subject of this inquiry (figure one): It is curious to note that Navaho artists employed the very same image to denote the “Red Star” or “Big Red Star” (*sq' coh licí*).<sup>437</sup> Here one recognizes the very same tendency to conflate the concepts of “red” and “big” or “great” that we have documented among other Amerindian cultures.

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<sup>434</sup> 3738, quoted from E. Floresco, *The Myth of Quetzalcoatl* (Baltimore, 1999), p. 53.

<sup>435</sup> J. Murie, “Ceremonies of the Pawnee,” *Smithsonian Contributions to Anthropology* 27 (Cambridge, 1981), p. 38.

<sup>436</sup> D. Tunbridge, *Flinders Ranges Dreaming* (Canberra, 1988), p. 142.

<sup>437</sup> B. Haile, *Starlore of the Navaho* (Sante Fe, 1977), pp. 41 and frontispiece.



The Navaho tell a very interesting story in conjunction with the big red star in question, which they identified as Coyote's star.<sup>438</sup> According to a Navaho myth of Creation, it was said that "Coyote queered things in the beginning" and maliciously scattered the Milky Way before setting his own star within its midst.<sup>439</sup> As a result of its capricious behavior, Coyote's star was considered a portent of war and "Patron of Disorder"<sup>440</sup>:

"The Holy People were placing the stars. *Ma'ii* (Coyote) came in and got annoyed by their slowness. He picked out a red star (*ma'ii sq*) from the bag with stars and placed it in the south. He said, 'This is going to be my star.' He took the bag of stars and threw it over his head. That is how *Yikaisdáhi* (Milky Way) was formed...Because Coyote picked his star in such a way, he said it would announce trouble, war or bad times."<sup>441</sup>

Yet this is exactly how the planet Mars was described in astronomical texts the world over. Thus, in China, as in Babylon, Mars was deemed to portend war and disorder: "(Mars) governs states that lack the Way, Causing disorder, robbery, sickness, mourning, famine, and warfare."<sup>442</sup>

It will be noted that, in ancient China, the planet Mars was explicitly associated with causing disorder. This report parallels the Navaho tradition that Coyote's star was known as the Patron of Disorder.

One final tradition is relevant here: The Navaho identified the "Big Red Star" as the "igniter" (*b<sup>a</sup>kq'*) of the Fire god.<sup>443</sup> This peculiar tradition naturally recalls the Skidi tradition identifying the "big" red planet with the fire-drill.

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<sup>438</sup> *Ibid.*

<sup>439</sup> *Ibid.*, p. 28.

<sup>440</sup> T. Griffin-Pierce, "Ethnoastronomy in Navaho Sandpaintings of the Heavens," *Archaeoastronomy* 9 (1986), p. 63.

<sup>441</sup> R. Pinxten & I. Van Dooren, "Navajo Earth and Sky," in R. Williamson & C. Farrer eds., *Earth and Sky* (Albuquerque, 1992), p. 108.

<sup>442</sup> J. Major, *Heaven and Earth in Early Han Thought* (Buffalo, 1993), p. 74.

<sup>443</sup> B. Haile, *Starlore Among the Navaho* (Sante Fe, 1977), p. 7.

## Conclusion

A wealth of circumstantial evidence suggests that the “Great Star” of Amerindian myth was actually the planet Mars, rather than Venus. Thus the Skidi and Cheyenne, among others, describe the mythical Morning Star as a red warrior. Amerindian artworks purporting to depict the Morning Star routinely show a four-pointed star featuring a central red disc with four white rays. Amerindian languages from the East Coast to the West, including Mesoamerica, describe the Morning Star by a phrase meaning at once “Great Star” but also “Red Star.” Such evidence is best explained by reference to the red planet Mars, not Venus.

The question arises as to how to explain the peculiar image depicted in figure one. Taking our cue from the Skidi myth of Creation, wherein a spectacular conjunction of Mars and Venus was conceptualized as a sacred marriage or mating, it is our opinion that the so-called “Great Star” of figure one actually depicts a conjunction of Mars and Venus, wherein Mars is the central red orb and Venus is represented by the four radiating rays. In fact, of the present planets Mars is the only body—apart from Mercury—small enough to actually appear set within the body of Venus. It is patently obvious, however, that Mars does not currently move on an orbit that would allow it to ever appear in inferior conjunction with the larger Venus. Yet as we have documented elsewhere, there is a wealth of evidence that Mars formerly moved on a radically different orbit, one that brought it dangerously close to Earth and, at times, positioned it in front of Venus.<sup>444</sup>

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<sup>444</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997); *The Many Faces of Venus* (Ames, 2001); *Starf\*cker* (Ames, 2006).

## 8. The Horus-Star

“The earliest home of the gods that we can discern is the sky.”<sup>445</sup>

“Pharaoh is Horus, and of this god little enough is known.”<sup>446</sup>

The great gods confront us already at the dawn of history. The Egyptian Horus is a case in point, his preeminence in ancient Egyptian religion being everywhere apparent. The pharaoh himself was considered to be the earthly incarnation of the god, a belief-system reflected in the so-called Horus names borne by early rulers from the first dynasty on.<sup>447</sup>

Yet if it is commonly acknowledged that Horus represents the quintessential Egyptian god, there is no consensus as to his origins or fundamental nature. That he was a celestial power all authorities concur. The question, however, is what celestial power best explains Horus’s multifarious functions in Egyptian religion?

A survey of the relevant scholarship on the matter reveals that Horus has typically been identified with the sun.<sup>448</sup> That said, leading Egyptologists have advanced arguments that the god is to be identified with the planet Venus;<sup>449</sup> with the star Sirius;<sup>450</sup> and with the amorphous sky itself.<sup>451</sup> It is our opinion that all of these interpretations are not only erroneous but fundamentally misguided insofar as they reflect a fatally flawed methodological approach to the Egyptian star-religion—namely, an attempt to force-fit the ancient descriptions of the most prominent celestial bodies to the familiar appearance of the current solar system. The failed methodology and fuzzy thinking which

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<sup>445</sup> E. Hornung, *Conceptions of God in Ancient Egypt* (Ithaca, 1982), p. 227.

<sup>446</sup> H. Frankfort, *Kingship and the Gods* (Chicago, 1948), p. 37.

<sup>447</sup> *Ibid.*, p. 39.

<sup>448</sup> T. Allen, *Horus in the Pyramid Texts* (Chicago, 1916), p. 11, writes: “The solar element in Horus clearly predominates.” James Allen, *Genesis in Egypt* (New Haven, 1988), p. 11 offers a similar opinion.

<sup>449</sup> R. Krauss, *Astronomische Konzepte und Jenseitsvorstellungen in den Pyramidentexten* (Wiesbaden, 1997), pp. 216-234.

<sup>450</sup> R. Anthes, “Horus als Sirius in den Pyramidentexten,” *ZÄS* 102 (1975), pp. 1-10.

<sup>451</sup> W. Schenkel, “Horus,” *LÄ* III (Berlin, 1977), col. 14, writes: “The oldest function of Horus may have been that of a Heaven-god.”

predominates in modern Egyptology is especially evident in the following statement of Rudolf Anthes:

“The heavenly Horus was a star as well as the sun, and perhaps also the moon. It seems as if he was that celestial body which appeared conspicuous either at day or at night.”<sup>452</sup>

In order to bring clarity to the difficult question of Horus’s celestial identification, it is necessary to begin at the beginning—in this case, just prior to the beginning of history itself. The cult of Horus is prominent already in predynastic times (Writing itself is first attested in Egypt during the Predynastic Period, ca. 3200 BCE, in the Abydos tomb known as U-j.<sup>453</sup>). Rulers from the Naqada I period, for example, worshipped the falcon-god prior to the unification of Egypt.<sup>454</sup>

In the Early Dynastic Period (ca. 3000-2600 BCE), Horus is explicitly identified as a star. An annal from the First Dynasty reign of King Aha bears the name “Festival of the Horus-Star-of-the-Gods.”<sup>455</sup> Early royal domain names likewise contain reference to the Horus-star. The domain established by Anedjib (also First Dynasty) was called *Ór-sbâ-©t*, “Horus, star of the corporation (of gods).”<sup>456</sup> Hetepsekhemwy (Second Dynasty) established a domain called *Ór-Δœ-sbâ*, “Horus risen as a star.”<sup>457</sup> Khasekhemwy founded a new domain called *Ór-sbâ-bâw*, “Horus, the star of souls.”<sup>458</sup> Most informative, perhaps, is the domain established by Djoser at the beginning of the Third Dynasty, named *Ór-sbâ-Δnti-pt*, “Horus-star at the front of the sky.”<sup>459</sup>

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<sup>452</sup> R. Anthes, “Egyptian Theology in the Third Millennium B.C.,” *JNES* 18 (1959), p. 171.

<sup>453</sup> T. Wilkinson, *Early Dynastic Egypt* (London, 2001), p. 19.

<sup>454</sup> J. Assmann, *The Mind of Egypt* (Cambridge, 1996), p. 33.

<sup>455</sup> E. Hornung, *Idea Into Image* (Princeton, 1992), p. 158.

<sup>456</sup> T. Wilkinson, *op. cit.*, p. 121.

<sup>457</sup> *Ibid.*, p. 121.

<sup>458</sup> *Ibid.*, p. 121.

<sup>459</sup> It will be noted here that Toby Wilkinson, *op. cit.*, p. 122, translates this name as “foremost star of the sky.”

To judge by the evidence of these names, Horus was originally conceived as a stellar power—indeed, as a most prominent star “at the front of the sky.” That said, the names in question are not sufficiently informative to pinpoint exactly which particular celestial body represented Horus during this period.

In addition to the god’s stellar roots, there is clear evidence that Horus was conceptualized as a powerful warrior very early on. This idea is apparent already in the Pyramid Texts as evidenced by the following spell from Queen Neith’s pyramid:

“So, ascend to the sky amongst the stars in the sky, and those before you shall hide and those after you shall be afraid of you, because of this your identity of Horus of the Duat...of the one who strikes them, of the one who spews them out, and wipes them out, and you will strike them, spew them out, and wipe them out at the lake, at the Great Green. You shall come to stand at the fore of the Imperishable Stars and sit on your metal throne from which the dead are far away.”<sup>460</sup>

The names of early pharaohs also bear witness to Horus’s warrior prowess. Toby Wilkinson offered the following observation:

“The Horus names of several First Dynasty kings expressed the aggressive authority of Horus, perhaps reflecting the coercive power of kingship at this stage of Egyptian statehood. Names like ‘Horus the fighter’ (Aha), ‘Horus the strong’ (Djer) or ‘arm-raising Horus’ (Qaa) call to mind the warlike iconography of the earliest royal monuments from the period of state formation.”<sup>461</sup>

This evidence, taken in conjunction with the Early Dynastic domain-names, strongly suggests that the stellar Horus was imagined as a formidable warrior. As we will document, this portrait of the god constitutes a decisive clue as to his stellar identity.

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<sup>460</sup> J. Allen, *The Ancient Egyptian Pyramid Texts* (Atlanta, 2005), p. 323.

<sup>461</sup> T. Wilkinson, *op. cit.*, p. 202.

Additional information regarding the star-god Horus is to be found in the Pyramid Texts dating from roughly a half millennium later (ca. 2300 BCE). That Horus was not the sun, as often maintained, is suggested by various hymns wherein the god is explicitly distinguished from the ancient sun god Re. In the following passage, for example, Horus (as the deceased king) is implored to ascend to heaven and join Re:

“Rêœ summons you into the zenith (?) of the sky as the Jackal, the Governor of the Two Enneads, and as Horus Ônty-mnit.f; may he set you as the Morning Star in the midst of the Field of Rushes.”<sup>462</sup>

Here, as elsewhere in the Pyramid Texts, Horus is identified with the “Morning Star.” In this guise Horus is described as the “son” of the sun god and thus he would appear to represent a distinct celestial body altogether—presumably a particularly prominent planet or star.

In order to clarify the origins of Horus’s cult it is necessary to identify the celestial body signified by the epithet “Morning Star.” Unfortunately, this is not a simple matter to determine from the Egyptian texts alone. The earliest texts, such as the Pyramid and Coffin Texts, never describe the star-god in such a manner or astronomical context that his identification with a particular star is conclusive. Instead we read that the Morning Star—as Horus—ascended to heaven in order to command the Imperishable Stars in the celestial Hereafter.

Raymond Faulkner considered it a foregone conclusion that Venus must be the stellar body referenced by the phrase “Morning Star.” Thus, in a comprehensive survey of Egyptian star-lore Faulkner wrote as follows: “As regards the identification of the

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<sup>462</sup> PT 1719d as translated by R. Faulkner, *The Ancient Egyptian Pyramid Texts* (Oxford, 1969). All passages from the Pyramid Texts are from Faulkner’s translation unless otherwise indicated.

Morning Star and the Lone Star with actual celestial bodies, there can be little doubt that, as elsewhere, the Morning Star is Phosphorus, Venus as seen at dawn.”<sup>463</sup>

Rolf Krauss has produced the most detailed and informed study of Egyptian star-religion to date. He, too, would identify the Horus-star with the planet Venus, citing as evidence various passages in the Pyramid Texts that purportedly describe it as shining in the “eastern” portion of the morning sky while moving with respect to other stars, a characteristic of planets rather than stars.<sup>464</sup> Krauss summarized his findings as follows:

“As early as the beginning of dynastic times Horus seems to be identified with the planet Venus. The names of the so-called royal vineyards describe Horus as a star. The name of Djoser’s vineyard reveals that Horus is a particular star ‘at the front of the sky’. The identification of Horus with Venus as known from the Pyramid Texts suggests itself...Royal ideology and ideas about the Hereafter seem to have had cosmological and stellar foundations which may well go back to predynastic times.”<sup>465</sup>

Yet the identification of Horus with the planet Venus *is not known* from the Pyramid Texts—quite to the contrary, as we intend to show. Here Krauss has simply assumed what has yet to be proven—that early references to Horus as the “Morning Star” have reference to Venus—and argued in a wholly circular fashion.

### Lord of the Netherworld

Horus’s early epithets offer a wealth of insight into his astral identity. A recurring epithet of the god is Duat, written with the following determinative—**K**—and conventionally

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<sup>463</sup> R. Faulkner, “The King and the Star-Religion in the Pyramid Texts,” *JNES* 25 (1966), p. 161.

<sup>464</sup> R. Krauss, *Astronomische Konzepte und Jenseitsvorstellungen in den Pyramidentexten* (Wiesbaden, 1997), pp. 216-234. Krauss cites Spell 437 as being especially instructive in this regard although no evidence adduced by him is determinative with regards to the identification of Horus with Venus.

<sup>465</sup> R. Krauss, “The Eye of Horus and the Planet Venus: Astronomical and Mythological References,” in J. Steele & A. Imhausen eds., *Under One Sky* (Münster, 2002), p. 205.

translated as “Netherworld.” The word Duat is derived from the root *dwā*, “morning,” whence comes Horus’s epithet *Neter Dua* signifying “Morning Star (or Morning God).”<sup>466</sup> The etymology of Duat suggests that Horus’s identity as the Morning Star is indissolubly connected to his role as Lord of the “Netherworld.” In a passage from the Pyramid Texts the association between the “Morning Star” and the Duat is made explicit: “O Morning Star, Horus of the Netherworld, divine Falcon, *wāḏāḏ*-bird whom the sky bore...”<sup>467</sup>

Although often sought for underground, the earliest texts confirm that the Duat was celestial in nature.<sup>468</sup> The following passage is especially telling in this regard:

“Make the sky clear and shine on them as a god; may you be enduring at the head of the sky as Horus of the Netherworld.”<sup>469</sup>

Horus is here described as standing at the “head” or front (*Δnt*) of the sky as Lord of the Duat. This epithet, together with the fact that the Horus-star is said to shine and “clear” the sky, would appear to confirm the Duat’s location in plain and prominent view.

Other spells implying that the Duat is to be found in close proximity to the ancient sun-god point to the same conclusion. Thus, Egyptian sources state that the sun god made his daily appearance from the Duat.<sup>470</sup> Especially relevant here is the following passage from the Pyramid Texts, wherein the deceased king ascends to the Duat in order to be near Re:

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<sup>466</sup> J. Allen, “The Cosmology of the Pyramid Texts,” in J. Allen et al eds., *Religion and Philosophy in Ancient Egypt* (New Haven, 1989), p. 23.

<sup>467</sup> PT 1207.

<sup>468</sup> E. Hornung, “Dat,” *LÄ I* (Berlin, 1977), col. 994. See also L. Lesko, “Ancient Egyptian Cosmogonies and Cosmology,” in B. Shafer ed., *Religion in Ancient Egypt* (Ithaca, 1991), pp. 119-120.

<sup>469</sup> PT 1948.

<sup>470</sup> J. Allen, *Genesis in Egypt* (New Haven, 1988), p. 5. See also the discussion in S. Mercer, *The Pyramid Texts, Vol. 4* (New York, 1952), p. 34.



“Lift up your faces, you gods who are in the Netherworld [Duat], for the King has come that you may see him, he having become the great god. The king is ushered in with trembling, the King is robed. Guard yourselves, all of you, for the King governs men, the King judges the living within the domain of Rêœ...The King sits with those who row the bark of Rêœ, the King commands what is good and he does it, for the King is the great god.”<sup>471</sup>

Samuel Mercer, in his commentary on this particular passage, acknowledged the Duat’s fundamental identity with the domain of Re: “The *Dwâ.t* here is heaven, identical with the ‘land of Rêœ’ (273b), which is heaven, where the king becomes a great god, 272b.”<sup>472</sup>

The intimate association between Horus Duat and the region of the sky occupied by the ancient sun god is also evident in the following passage, wherein Horus is said to illuminate the sky from his station in the Duat near Re:

“Reœ has [taken (?)] me to himself, to the sky, to the eastern side of the sky; As this Horus, as the dweller in the Netherworld, As this star which illumines the sky.”<sup>473</sup>

In apparent contradiction to its intimate association with the ancient sun-god, the Pyramid Texts elsewhere describe Horus Duat as standing in close proximity to the Imperishable Stars—the latter conventionally identified with the circumpolar stars.<sup>474</sup> Thus, in the following passage the deceased king is identified with Horus Duat and set amongst the Imperishable Stars:

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<sup>471</sup> PT 272-274.

<sup>472</sup> S. Mercer, *The Pyramid Texts*, Vol. 2 (New York, 1952), p. 126. K. Sethe offered a similar analysis in *Übersetzung und Kommentar zu den altägyptischen Pyramidentexten*, Vol. 1 (Wiesbaden, 1962), pp. 283-284.

<sup>473</sup> PT 362.

<sup>474</sup> J. Allen, “The Cosmology of the Pyramid Texts,” in W. Simpson ed., *Religion and Philosophy in Ancient Egypt* (New Haven, 1989), p. 4.

“May you go up as Horus of the Netherworld who is at the head of the Imperishable Stars.”<sup>475</sup>

Horus Duat is here described with the epithet  $\Delta ntj j\Delta mw-Sk jw$ , translated alternately as “head” or “front” of the Imperishable Stars.<sup>476</sup> Taken literally, this passage poses a seemingly insurmountable problem for the conventional view that Horus is to be identified with the planet Venus, since that planet can hardly be said to stand at the “front” of the circumpolar stars (In its current orbit, Venus never moves more than 45 degrees from the ecliptic and is thus far removed from the circumpolar region at all times).<sup>477</sup>

### **Horus and Nergal**

Additional insight into Horus’s stellar identity can be gained by comparing the Egyptian astral traditions with those from other ancient astronomies. The evidence from ancient Mesopotamia is especially relevant in this regard since it was the site of the earliest systematic observations of celestial phenomena—hence its status as the original homeland of scientific astronomy itself. In the very early Egyptian sources, as we have seen, Horus was represented as a prominent star and raging warrior. In Babylonian astronomical texts it is the planet Mars—conceptualized as the god Nergal—that was regarded as the warrior-star par excellence.<sup>478</sup> A systematic analysis of the cults associated with Horus and Nergal will readily confirm their fundamentally analogous nature.

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<sup>475</sup> PT 1301.

<sup>476</sup> R. Krauss, *op. cit.*, p. 229 renders this passage as follows: “Mögest du herausgehen als Datischer Horus, ‘befindlich an der Spitze’ der ‘Unvergänglichen Sterne’.”

<sup>477</sup> R. Krauss, *op. cit.*, p. 129 concedes this point.

<sup>478</sup> D. Brown, *Mesopotamian Planetary Astronomy-Astrology* (Groningen, 2000), p. 56. See also the extensive discussion in E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 15-26.

Horus, as we have seen, was known as “Lord of the Netherworld” (*Duat*). This epithet finds a precise parallel in the cult of Nergal, who was invoked as *umun-úrugal*, “Lord of the Netherworld.”<sup>479</sup> The epithet “Enlil of the Kur” attests to the same general idea.<sup>480</sup>

Nergal is elsewhere described by the epithet *Lugal-IGI.DU-anna*, “king at the front of heaven.”<sup>481</sup> It is obvious that this epithet forms a close counterpart to Horus’s epithet *sbā-Δnti-pt*, “star at the front of the sky,” cited earlier. The fact that the latter epithet is attested already in the Third Dynasty confirms its archaic and likely archetypal nature.

In the Pyramid and Coffin Texts Horus is intimately associated with the *akhet*, an important Egyptian cosmological concept conventionally translated as “horizon”—hence the epithet *Horemakhet* (“Horus in the horizon”). As its hieroglyph reveals—**Z**—the *akhet* came to signify the celestial mountain associated with the sun-god’s daily appearance.<sup>482</sup>

The planet-god Nergal is likewise associated with the mountain of sunrise. Thus an early Sumerian temple hymn says of Nergal that he “rises in the mountain where the sun rises.”<sup>483</sup> According to the Sumerian hymn *Enlil and Ninlil*, the new-born Nergal was assigned the mountain of sunrise (*Ôursag*) during Creation.<sup>484</sup> This Sumerian tradition, in turn, finds a close parallel in the Egyptian tradition that Horus was installed within the *akhet* at Creation.<sup>485</sup> Such evidence, considered together with the fact that Egyptian astronomical texts from the New Kingdom identified the planet Mars as *Horemakhet*—

<sup>479</sup> D. Katz, *The Image of the Netherworld in the Sumerian Sources* (Bethesda, 2003), p. 404.

<sup>480</sup> F. Wiggermann, “Nergal,” *Reallexikon der Assyriologie* 9 (Berlin, 1999), p. 218.

<sup>481</sup> W. Lambert, “Lugal-IGI.DU-anna,” *Reallexikon der Assyriologie* 7 (Berlin, 1983), p. 142. F. Wiggermann, *op. cit.*, p. 216 translates the epithet as “the one who goes in front.”

<sup>482</sup> J. Assmann, “Horizont,” *LÄ* III (Berlin, 1977), cols. 3-7.

<sup>483</sup> A. Sjöberg & E. Bergmann, *The Collection of the Sumerian Temple Hymns* (Locust Valley, 1969), pp. 106.

<sup>484</sup> *Ibid.*, pp. 51, 88. See also line 11 in “A tigi to Nergal (Nergal C),” in J. Black et al., *The Electronic Text Corpus of Sumerian Literature* (<http://www-etcsl.orient.ox.ac.uk/>) (Oxford, 1998).

<sup>485</sup> See, for example, *CT* II:220a and 223b.

“Horus-of-the-horizon”<sup>486</sup>—strongly suggests that it was the planet Mars, not Venus, which formed the subject of the Egyptian traditions testifying to Horus’s intimate association with the *akhet*.

In the Coffin Texts, as in the Pyramid Texts, Horus is described as “raging” against the gods.<sup>487</sup> There, as elsewhere, the word used to describe the god’s terrible wrath is *fnfn*.<sup>488</sup>

Nergal, too, was renowned for raging against the gods. Witness the following passage:

“O warrior, splendid one...Mighty of arms, broad of chest, perfect one without rival among all the gods, Who grasps the pitiless deluge-weapon, who massacres the enemy, Lion clad in splendor, at the flaring-up of whose fierce brilliance, The gods of the inhabited world took to secret places...”<sup>489</sup>

Of the various words used to describe Nergal’s wrath, *dandannu* is particularly common.<sup>490</sup> The Akkadian word in question, it will be noted, is a possible cognate of the Egyptian verb used to describe Horus’s raging.

To summarize: As a warrior-star, the star “at the front of the sky,” Lord of the Netherworld, and rager against the gods—not to mention his intimate association with the mountain of sunrise—Horus shares a specific and multifaceted pattern of characteristics with the Sumerian Nergal. These analogous epithets and mythological attributes, in turn, suggest that the two gods share a fundamental affinity and likely trace to a common celestial prototype. Indeed it is our contention that there is a perfectly logical explanation

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<sup>486</sup> As in Senmut’s tomb, for example (TT 353). See also O. Neugebauer & R. Parker, *Egyptian Astronomical Texts, Vol. 3* (London, 1960), p. 179.

<sup>487</sup> CT 1:51 reads: “He rages against the gods with his power.”

<sup>488</sup> R. Faulkner, *The Ancient Egyptian Coffin Texts* (Oxford, 1973), p. 10.

<sup>489</sup> B. Foster, *Before the Muses: An Anthology of Akkadian Literature* (Bethesda, 1993), p. 622.

<sup>490</sup> E. von Weiher, *Der babylonische Gott Nergal* (Berlin, 1971), p. 72.

for the structural parallelisms common to the cults of Horus and Nergal: Both gods originated as personifications of the planet Mars.

## 9. Tîwaz/Tyr

“In their songs, their only form of recorded history, the Germans celebrate the earth-born god, Tuis[c]o.”<sup>491</sup>

Writing at the turn of the first century of the common era, the Roman historian Tacitus reported that the greatest god of the ancient Germanic tribes was Mars. Thus, in his *Histories*, Tacitus quotes an envoy from the Tencteri tribe as addressing the Senate as follows: “For your return into the unity of the German nation and name we give thanks to the Gods whom we worship in common and to Mars, the chief of our divinities.”<sup>492</sup>

The barbarian god referenced by this *interpretatio Romana* was known by various names, including Zio, Tiw, and Tyr. As the author of the *Germania*—one of the earliest and most valuable ethnographical surveys on record—there is good reason to regard Tacitus as a reliable witness on this particular aspect of Germanic religion. Indeed, according to Jacob Grimm, who cites Procopius and Jornandes to the same general effect as Tacitus, the early chroniclers were unanimous regarding Mars’s former prominence among the various Germanic tribes:

“Further, this lofty position is claimed for Zio by the oldest accounts that have reached us. Mars is singled out as a chief god of all the Germanic nations.”<sup>493</sup>

Following Grimm’s lead, modern scholars have confirmed that the name of the Germanic war-god—as \*Tîwaz—is cognate with that of the Greek Zeus and therefore belongs among the most archaic strata in the Proto-Indo-European language family. On this matter Edgar Polomé observed:

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<sup>491</sup> *Germania* 2, as translated by H. Mattingly, *Tacitus on Britain and Germany* (Baltimore, 1948), p. 102.

<sup>492</sup> Tacitus, *Histories* 4.64.1.

<sup>493</sup> J. Grimm, *op. cit.*, pp. 196-197.

“From the discredited etymological method precious little survived except for one solid comparison: Ved. *Dyaus pitā*=Gk. *Zeus patēr*=Lat. *Juppiter* reflecting an IE *\*dyéus* ‘god of the luminous sky,’ whose name has also survived in Germanic *\*Tîwaz*, contained in *Tuesday* and reflected in Old Norse by the name of the Eddic deity *Tyr*.”<sup>494</sup>

Apart from these bare bones precious little else has survived with respect to the cult of Tyr/*\*Tîwaz* (hereafter *Tîwaz*). That he was closely associated with the archaic legal assembly known as the *Thing* we know from early Roman inscriptions, which regularly translate *Tîwaz*/Tyr by Mars:

“Epigraphy and place-names attest to an important link between ‘Mars’-Tyr and the *thing* (ON *Þing*), the popular assembly where legal cases are tried and juridical difficulties heard. ‘Mars’ is actually called *Thingsus* on an inscription carved by Frisians at the beginning of the third century in Great Britain. In Zealand in Denmark, *Tislund* was certainly a place of assembly. Furthermore the translation of *Martis dies*, which is, for example *tysdagr* ‘Tyr’s day’ in Old Norse (cf. English *Tuesday*), is *dingesdach* in Middle Low German, Middle Dutch *dinxendach* ‘Ding’s day’ (Dutch *dinsdag*).”<sup>495</sup>

The god Tyr is scarcely attested outside of Denmark.<sup>496</sup> In the extant sources he is described as a god of war.<sup>497</sup> Snorri’s *Edda* offers the best testimony in this regard:

“There is a god called Tyr. He is the boldest and most courageous, and has power over victory in battle; it is good for brave men to invoke him. It is a proverbial saying that he who surpasses others and does not waver is ‘Tyr-valiant.’”<sup>498</sup>

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<sup>494</sup> E. Polomé, “Some Thoughts on the Methodology of Comparative Religion, with Special Focus on Indo-European,” in E. Polomé ed., *Essays in Memory of Karl Kerényi* (Washington, D.C., 1984), p. 10.

<sup>495</sup> G. Dumézil, *Gods of the Ancient Northmen* (Berkeley, 1973), pp. 43-44.

<sup>496</sup> E. Polomé, “Germanic Religion: An Overview,” in *Essays on Germanic Religion* (Washington, D.C., 1989), p. 105.

<sup>497</sup> H. S. Versnel, “Apollo and Mars One Hundred Years After Roscher,” *Visible Religion* 4 (1986), p. 332, calls *Tîwaz*/Tyr “the warrior god par excellence and for that reason equated with the Roman Mars.”

In perfect keeping with Snorri's portrait, ancient runes dedicated to the god depict an upright sword. Here too there would appear to be a possible connection to the Latin god renowned for his sword or lance.<sup>499</sup> And as Jacob Grimm pointed out well over a century ago, this rune can't help but recall the ancient symbol of the planet Mars: "The shape of the rune [ᚦ] has an obvious resemblance to the old-established symbol of the planet Mars when set upright [♂]."<sup>500</sup>

It has long been thought that the Germanic god—under the Saxon name Irmin—was represented by a giant pillar known as *Irminsul*, believed to uphold the heavens.<sup>501</sup> Charlemagne is said to have destroyed just such a pillar in 772 during his campaign against the pagan Saxons in Westphalia. In the *Irminsul* scholars have recognized a reference to the *axis mundi* as World Pillar:

"We know too that the Germanic peoples had the idea of a World Pillar, associated with the cult of the supreme sky god. In a Saxon Chronicle of about 970 written by Widukind, there is a description of the setting up of a column in honour of Mars, to celebrate the victory of the Saxons against the Thuringians. He states that the name of Mars was Hermin. Another chronicle, written about thirty years after the event it describes, records how Charles the Great destroyed the temple and the sacred wood of Irminsul of the Saxons. Irminsul is mentioned again by a ninth-century writer, who states that it was the 'column of the universe, upholding all things.' It is thought that Irmin was another name for the sky god, Tīwaz, among the Saxons, and that the World Pillar, which upheld the sky, was associated with his worship."<sup>502</sup>

What are we to make of this evidence, admittedly fragmentary in nature and scattered across several millennia? Like the Paleolithic animals painted on the walls of French caves, the cult of Tīwaz/Tyr harks back to a distant time and, although much of the

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<sup>498</sup> *The Prose Edda* as translated by J. Young (Berkeley, 1954), p. 53.

<sup>499</sup> G. Dumézil, *Archaic Roman Religion*, Vol. 1 (Baltimore, 1996), p. 23.

<sup>500</sup> J. Grimm, *op. cit.*, p. 200.

<sup>501</sup> E. Polomé, *op. cit.*, p. 81.

<sup>502</sup> H. R. Davidson, *Gods and Myths of Northern Europe* (Middlesex, 1964), p. 196.



evidence pertaining to his elusive character and former grandeur has been either obscured or obliterated entirely, telling clues remain. Indeed, it is our opinion that there is still much to be learned by reexamining the evidence at hand from the unique perspective offered by a comparativist approach.

Because of the celebrated Indo-European cognates of his name, the cult of Tîwaz has long occupied a prominent place in comparative analyses of ancient myth. Jacob Grimm, in his monumental *Teutonic Mythology*, rightly compared Tîwaz/Tyr to Zeus:

“These intricate etymologies were not to be avoided: they entitle us to claim a sphere for the Teutonic god Zio, Tiw, Tyr, which places him on a level with the loftiest deities of antiquity. Represented in the Edda as Odin’s son, he may seem inferior to him in power and moment; but the two really fall into one, inasmuch as both are directors of war and battle, and the fame of victory proceeds from each of them alike.”<sup>503</sup>

Evident throughout Grimm’s learned discussion is the belief that Tîwaz/Tyr originally signified a celestial power. Whether or not he was fundamentally identical to Odin, Grimm was undecided:

“If the earthborn Tuisco, the ancestral god of our nation, stands...for *Tivisco*, *Tiusco*, it shews on its very face the meaning of a divine heavenly being, leaving it an open question whether we will choose to understand it of Wuotan or any other god.”<sup>504</sup>

Naturalistic interpretations of ancient myth are rare nowadays. Doubtless the many excesses of Max Müller’s solar school of mythology contributed to the rapid decline and virtual extinction of such endeavors. Alongside this development was another equally devastating for the comparativist enterprise—namely, a tendency for scholars investigating ancient myth to narrow their focus and generally shy away from offering multi-cultural or universalist explanations. Rather than drawing broad comparisons after

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<sup>503</sup> J. Grimm, *Teutonic Mythology*, Vol. 1 (Gloucester, 1976), p. 196.

<sup>504</sup> *Ibid.*, p. 195.

the fashion of Jacob Grimm or Wilhelm Roscher, the identification of isolated motifs and “types” became all the rage, with the result that a unifying or holistic approach to ancient myth was largely abandoned.

In the 20<sup>th</sup> century, the most celebrated comparativist was Georges Dumézil. Influenced by the writings of Emile Durkheim and other members of the French school of anthropology, Dumézil sought to understand a particular culture’s mythology as reflecting its underlying social structures. With specific reference to the caste-system of ancient India, Dumézil proposed that the prototypical Indo-European society was distinguished by a tripartite system featuring a sovereign function, a warrior function, and a third function devoted to the fertility of the land. Ancient Indo-European myth, according to Dumézil’s analysis, was primarily devoted to describing this ancient system of social stratification and function—albeit in allegorical and figurative language.

In 1938 Dumézil published a study of the principal Germanic gods that is generally credited with launching his career as a comparativist. The book in question, later translated as *Gods of the Ancient Northmen*, has been described as “one of the most significant contributions to general knowledge yet made in this century.”<sup>505</sup>

*Gods of the Ancient Northmen* represented a watershed in Dumézil’s thinking. As Scott Littleton observed: “These Germanic writings play a significant role in the development of Dumézil’s Indo-European canon, for they helped to establish the basic ideological structure of Indo-European mythology.”<sup>506</sup> The Germanic evidence, according to Udo Strutynski, redirected Dumézil’s entire approach to myth inasmuch as it “allowed Dumézil to refine his structure and thereby better to understand the dynamics of Indo-European thought. The split in the sovereign function between its magico-religious and juridical aspects which Dumézil had observed in its representative gods Odin and Tyr respectively became the subject of an investigation centered primarily on Indic tradition

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<sup>505</sup> C. Scott Littleton, “Introduction, Part 1,” in G. Dumézil, *Gods of the Ancient Northmen* (Berkeley, 1973), p. ix.

<sup>506</sup> *Ibid.*, p. xx.

where Dumézil found a clearly enunciated and structurally significant concept of joint sovereignty in the gods Varuna and Mitra, with their respective parallels in the Roman Jupiter and *Dius Fidius*.<sup>507</sup>

Given the central importance of the Germanic evidence for Dumézil's intellectual development and theoretical legacy, it is worthwhile exploring how well his analysis of *Tîwaz*/Tyr holds up. In accordance with his tripartite theory of Indo-European myth, wherein gods of sovereignty are supposedly coupled with another god, Dumézil sought to understand Tyr as a god of the first function alongside Odin. In this interpretation, Tyr was deemed to be primarily concerned with law and order—hence the god's intimate association with the *Thing*. Tyr's warrior-function Dumézil regarded as a secondary development.<sup>508</sup>

Throughout his analysis of Tyr's cult Dumézil is at much pains to explain away the Germanic god's identification with the Latin god Mars. For Dumézil, Mars represented the classic example of the warrior or second function, and therefore it was difficult for him to square this position with the proposal that Tyr originally belonged to the first function as a god of legal procedure. It is not Tyr who properly corresponds to Mars, but Thor, according to Dumézil.

How, then, does Dumézil justify his attempt to disassociate *Tîwaz* from the Latin god Mars as a god of war? The following summary represents his most complete statement on the matter:

“As for the consequences of the relative chronology that one deduces from the equation *Dyauh=Zeus=Jupiter=\*Tiuz* (supposing that this equation is exact: there are reasons for deriving *Tyr* and *Zio* rather from *\*deiwo-*, the generic Indo-European name for the gods), these consequences are founded on a simplistic and erroneous interpretation of this

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<sup>507</sup> *Ibid.*, p. xxvi.

<sup>508</sup> U. Strutynski, “Introduction, Part II,” in G. Dumézil, *Gods of the Ancient Northmen* (Berkeley, 1973), p. xxxvii.

equation, and more generally on a false conception of the role and prerogatives of linguistics in such matters. In fact, in diverse areas of the Indo-European totality, the same divine function may be attributed, and myths illustrating this function may be applied, to gods with different names. Conversely, gods bearing similar or identical names, may, through particular evolutions that do not imply great changes in the structures of the religions, be endowed with different functions. The agreeable phonetic conformity of *Zeus*, *Jupiter*, and *Dyauh*, precious for the linguist, does not carry the mythologist very far. He quickly notices that the first two gods and the third do not in the least do the same things. The Vedic god, who is without great actuality, scarcely goes beyond the materiality of the luminous sky, which, taken as a noun, his name signifies. Jupiter and Zeus, on the contrary, are not the sky made divine—but the very real, very personal king of the gods and men, and the lightning god. If one still wishes to compare them, functionally, to various figures from the Vedic pantheon, it is to the sovereigns Mitra and Varuna on the one hand and to the lightning god Indra on the other that one must address oneself. In other terms—speaking no more of Zeus, as Greek mythology escapes Indo-European categories—if one wishes to refer to the framework of the ‘three functions’ defined in the previous chapter, one sees that Jupiter, in this framework, occupies the first level, that of sovereignty, whereas in India Dyauh remains outside the framework, and the first level is occupied there by Varuna and Mitra. Under the same conditions, it is therefore possible that the old Indo-European name *\*Dyêu-*, in its supposed Germanic form *\*Tiuz*, does not apply to the god who is functionally analogous to Dyauh, nor even perhaps to Zeus and Jupiter. The functions of these last two may have been assumed, among the Germanic peoples, by a god bearing another name, a new name, properly Germanic. It is possible, by the same reasoning that *\*Tiuz*, if indeed there was a *\*Tiuz*, might have coexisted with another god, *\*Wodanaz*, Indo-European in function and in his position in the tripartite structure but not in name.”<sup>509</sup>

It would be difficult to imagine a more blatant example of special pleading in a work purporting to offer a scientific approach to ancient religion and myth. Using Dumézil’s methods and reasoning, it would be possible to explain—or explain away—virtually

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<sup>509</sup> G. Dumézil, *op. cit.*, pp. 37-38.

anything. An evidence-based interpretation of ancient myth should be able to do better than this.

Especially troubling for a supposedly comprehensive theory of ancient religion is the fact that it would essentially eschew any analysis of Greek mythology because, according to Dumézil, it “escapes Indo-European categories.” Amazingly, Dumézil’s most ardent supporters agree with this assessment. Thus Strutynski observes: “From the Indo-European perspective, Greek tradition may for all intents and purposes be discounted.”<sup>510</sup> Yet it is difficult to understand why this should be the case? If we are to believe Dumézil and his supporters with respect to the central importance of the tripartite structure of ancient society for ancient Indo-European myth, how are we to explain this strange circumstance vis a vis the Greeks from a historical standpoint?

It is our opinion that Dumézil has got it all wrong—that, in fact, Tacitus and the ancients were quite right to understand Tîwaz as a Germanic counterpart to the Latin war-god Mars. All of the data is consistent with this interpretation, and no piece of evidence contradicts it.

It is arguable, in fact, that Dumézil either ignores or misinterprets the primary data in Tîwaz/Tyr’s cult. By ruling out any discussion of the Greek Zeus, Dumézil effectively avoids any analysis of the celestial background clearly evident in the Germanic god’s name. That the Greek cult of Zeus was permeated with celestial imagery is readily confirmed by even a cursory review of A. B. Cook’s monumental *Zeus*. Witness, for example, the intimate relation between Zeus and a Sky Pillar: It was from atop this pillar that Zeus himself was thought to fulminate and cast forth his lightning.<sup>511</sup> Zeus’s Sky Pillar, in turn, was believed to function as a “road” allowing for ready trafficking between heaven and earth. Cook himself sought to draw a parallel between the “road to Zeus” celebrated by Pindar and a “road of Iring/\*Tîwaz” celebrated in Germanic lore: “If,

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<sup>510</sup> U. Strutynski, *op. cit.*, p. xxv.

<sup>511</sup> A. B. Cook, *Zeus*, Vol. 2 (New York, 1965), pp. 36-169.

therefore, Iring is rightly regarded as a form of Ziu [Tîwaz], we have here the Germanic parallel to Pindar's 'road of Zeus.'"<sup>512</sup>

Dumézil's interpretation of Zeus as "the very real, very personal king of the gods and men, and the lightning god" is so banal and devoid of insight as to be fundamentally misleading. Properly understood, Zeus is the archetypal thunder-god *in heaven* and, as such, he represents a close structural analogue to the Norse Thor and Vedic Indra. Any analysis of these three gods which ignores the unequivocal celestial imagery attached to them, like that of Dumézil, is doomed to failure and reflects a fundamentally faulty methodology.

That the name Tîwaz, like that of Zeus, originally signified a celestial power is supported by the fact that the Germanic peoples were renowned for their worship of the various celestial bodies. On this matter Julius Caesar is our earliest witness: "The Germanic people only consider as gods the deities they actually perceive and from whose power they openly benefit—such as the sun, the moon, and Vulcanus."<sup>513</sup> Caesar's testimony, in turn, is complemented by evidence from ancient Scandinavian rock art wherein celestial imagery features prominently.<sup>514</sup> The evidence of Tyr's rune, finally, is also suggestive in this regard, as Grimm deduced.

Although Dumézil mentions Tîwaz/Tyr's identification with the Latin god Mars, he does so almost in passing and fails to adequately explore their analogous functions. At the same time he downplays the Germanic god's connection with war in favor of his association with the legal assembly known as the *Thing*. Dumézil's analysis here is decidedly subjective and arbitrary. It is our view, in contrast, that a valid theory of the Germanic god's origins ought to explain his connection to war *as well as* his connection to the *Thing*.

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<sup>512</sup> *Ibid.*, p. 52.

<sup>513</sup> *Gallic Wars* VI.21.

<sup>514</sup> M. Green, *The Sun-Gods of Ancient Europe* (London, 1991). See also E. Polomé, *op. cit.*, p. 75.

Ironically, it is Greek religion that points the way: Thus, we would propose that Apollo offers a striking structural analogue to the Germanic Tīwaz. Like Tīwaz, Apollo is intimately associated with an archaic legal assembly—the *apellai*. Recent investigations of Apollo’s cult, much impressed by this connection, have sought to explain the god’s name from this vantage point. Witness the following summary of Walter Burkert:

“The name in the earlier, pre-Homeric form *Apellon* is scarcely to be separated from the institution of the *apellai*, annual gatherings of the tribal or phratry organization such as are attested in Delphi and Laconia, and which, from the month name *Apellaios*, can be inferred for the entire Dorian-northwest Greek area.”<sup>515</sup>

Gregory Nagy, referencing Burkert’s hypothesis, draws a direct parallel with the Germanic *Thing*:

“The etymology of Apollo’s name, *Apóllōn*, has defied linguistic reconstruction for a long time. A breakthrough came with a 1975 article by Walter Burkert, in which he proposes that the Doric form of the name, *Apéllōn*, be connected with the noun *apéllai*, designating a seasonally recurring festival (an assembly or *thing*, in Germanic terms) of Dorian kinship groups...Thus the meaning would be something like ‘he of the assembly.’”<sup>516</sup>

There is much reason to believe that the archaic Apollo, like the Germanic Tīwaz, was conceptualized as a god of war.<sup>517</sup> Thus, an early Greek prayer invokes Apollo as follows: “Send a far-darting arrow from your bow against the enemy. Strike, O

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<sup>515</sup> W. Burkert, *Greek Religion* (Cambridge, 1985), p. 144. See also L. Farnell, *The Cults of the Greek States, Vol. 4* (New Rochelle, 2005), pp. 98-99.

<sup>516</sup> G. Nagy, “The Name of Apollo,” in J. Solomon ed., *Apollo: Origins and Influences* (Tucson, 1994), p. 3.

<sup>517</sup> L. Farnell, *op. cit.*, p. 175.

Paian!”<sup>518</sup> The fact that the Athenian army appears to have been under the direct patronage of Apollo is also relevant here.<sup>519</sup>

The fact that Apollo shares an intimate connection with sacred pillars further bolsters the proposed analogy with the Germanic Tîwaz.<sup>520</sup> Thus, a wealth of evidence suggests that the Greek god was somehow embodied in the so-called Aguius pillar, described by Harpocration as follows: “Aguius is a pillar tapering to an end, which they set up before the doors.”<sup>521</sup> Aristophanes likewise invoked the god in the form of a pillar: “Aguius, my neighbor, my hero, my lord! who dwellest in front of my vestibule gate.”<sup>522</sup>

As A. B. Cook observed, the Apollo-pillar is best understood as a symbol of the World Pillar: “It might be maintained that the Agyieús-pillar was essentially a universe-column, and that Agyieús himself, ‘God of the Way (*agyiá*),’ was originally lord of the road from earth to heaven.”<sup>523</sup> If Cook’s deduction is sound—and the evidence is certainly consistent with this view—the resemblance of Apollo’s pillar to the *Irminsul* of Irmin/Tîwaz is very close indeed.

Apollo himself, moreover, finds his closest structural parallel in the Latin god Mars, as first pointed out by the pioneering comparativist Wilhelm Roscher who, in a monograph

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<sup>518</sup> Fragment 13 of Timotheus as quoted from C. Faraone, *Talismans and Trojan Horses* (New York, 1992), p. 120. See also Aeschylus, *Hepta* 144-146.

<sup>519</sup> See the discussion in M. Jameson, “Apollo Lykeios in Athens,” *Archaiongnosia* 1 (1980), pp. 234ff.

<sup>520</sup> L. Farnell, *op. cit.*, pp. 148-149. There Farnell notes: “Now there are various reasons for believing that this worship of *Aguius* Apollo belonged to the earliest period of his religion... We are thus carried back at once to the age of stone and pillar-cult to which, as Dr. Evans has shown, the period of Mycenaean civilization belongs: and, in fact, if we may trust the evidence, to the most primitive stage of that cult when pillar and altar and divinity were not clearly distinguished.”

<sup>521</sup> J. Harrison, *Epilegomena to the Study of Greek Religion and Themis* (New York, 1962), p. 407.

<sup>522</sup> *Ibid.*, p. 410.

<sup>523</sup> A. B. Cook, *op. cit.*, p. 166.



dating to 1873, documented that the two gods share numerous features in common.<sup>524</sup> As Roscher documented, both war gods were invoked as patrons of migrations and founders of cities. Both Apollo and Mars were associated with scapegoat-like rituals (the Latin *ver sacrum* and Greek *dekateusis* and *pharmakoi*). Both gods were linked to sacred weapon-dances (those associated with the Latin *Salii* and Greek *Kouretes*). The first month of the year was consecrated to the two gods. And Apollo and Mars were each intimately associated with pestilence, wolves, and fertility among other functions.

The great merit of Roscher's comparative analysis is that it sought to offer a unified theory explaining the vast majority of Apollo's characteristics and functions by reference to a common natural-historical prototype (the Sun, in Roscher's telling of the story). Modern studies of Apollo, in contrast, have typically offered a more modest and piecemeal approach, attempting to understand a relative handful of characteristics by reference to one or another function (his status as *ephebos*-god, for example).<sup>525</sup> As a result of this modern development, the vast majority of Apollo's attributes and functions remain unexplained and thus scholars have little recourse other than to invoke syncretism on a grand scale and/or the importation of strange ancient Near Eastern concepts and practices in order to explain the multiform aspects of the Greek god's cult.

Alas, Roscher's incisive analysis has had surprisingly little influence on modern studies of Apollo, thanks in large part to its affiliation with the now discredited solar school of mythology. The decline and fall of the solar school notwithstanding, there is no denying that Apollo and Mars share a great deal in common. Hendrik Versnel, in a recent article updating and supplementing Roscher's analysis, concluded his review as follows: "Mars

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<sup>524</sup> *Studien zur vergleichenden Mythologie der Griechen und Römer I. Apollon und Mars* (Leipzig, 1873).

<sup>525</sup> A. Bierl, "Apollo in Greek Tragedy," J. Solomon ed., *Apollo: Origins and Influences* (Tucson, 1994), p. 84.

and Apollo present undeniable structural similarities.”<sup>526</sup> Indeed, according to Versnel, the two gods are “structural—and functional—duplicates.”<sup>527</sup>

How is it possible to explain this fact? Classicists are in agreement that neither diffusion nor independent invention can explain the striking correspondences between the Greek and Latin cults. The obvious answer, or so I have long maintained, is that the aboriginal cults of Apollo and Mars both reflect the long-term observation and veneration of the planet Mars.<sup>528</sup> Similar observations beget similar mythological interpretations and ritual celebrations. Amazingly enough, however, neither Roscher nor Versnel ever suspected that the cult of the Latin god Mars might have reference to the celestial body bearing the same name. Both of these distinguished scholars would presumably understand the Latin god’s identification with the red planet as a late and secondary development. Is it possible to offer a definitive answer to this objection?

The comparative methodology pioneered by Roscher provides the key. Yet in order to arrive at reliable conclusions it is necessary to look beyond the Indo-European cultures studied by Roscher, Grimm, and Dumézil. In fact, one of the primary objectives of *Martian Metamorphoses* was to document the presence of Mars-like gods around the globe. There I was able to show that Apollo and Mars are not unique in sharing a specific and multifaceted symbolism. Apollo shares numerous characteristics in common with the Vedic god Rudra, for example, including an intimate relationship to pestilence, arrows,<sup>529</sup> pillars,<sup>530</sup> healing, and music.<sup>531</sup> There is good reason to believe, moreover,

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<sup>526</sup> H. S. Versnel, “Apollo and Mars One Hundred Years After Roscher,” *Visible Religion* 4 (1986), p. 327.

<sup>527</sup> *Ibid.*, p. 334.

<sup>528</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 51-65.

<sup>529</sup> *Rig Veda* VII:46:1-4. Rudra’s epithet Sarva, derived from śaru, “the arrow,” has reference to this aspect of his cult. See S. Kramrisch, *The Presence of Siva* (Princeton, 1981), p. 92.

<sup>530</sup> As *Sthanu*, Rudra was represented as a pillar: “Sthānu (from the root *sthā*, ‘to stand’), ‘a post,’ is Rudra’s concrete symbol.” See S. Kramrisch, *op. cit.*, p. 119.

<sup>531</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 62-65. See also H. Grégoire, M. Mathieu & R. Goosens, *Asklēpios, Apollon Smintheus, et Rudra* (Brussels, 1949).

that Rudra was early on identified with the planet Mars, a Vedic epithet of the god describing him as the “red boar of heaven.”<sup>532</sup>

As the earliest testimony surrounding Rudra this epithet is of paramount importance, since Mars is one of the few celestial bodies that presents a red color. Certainly it is significant to find that the red planet was compared to a boar or pig by other cultures. In ancient Babylon, for example, Mars was known as the “swine star,” among other things.<sup>533</sup> In the South Sea Islands the planet Mars was conceptualized as the “red pig.”<sup>534</sup> The latter epithet offers a striking parallel to Rudra’s description as the “red boar of heaven.” That Apollo was likewise represented as a “boar” in Greek cult and myth is consistent with the hypothesis that he represents a Greek analogue to Rudra.<sup>535</sup>

A number of scholars have pointed out that Apollo shares a set of important characteristics in common with the Semitic god Reseph.<sup>536</sup> Both gods are intimately associated with pestilence and arrows, for example, and both are renowned as dragon-slayers. A Greek inscription from the 4<sup>th</sup> century BC identifies the two gods.<sup>537</sup>

In a much-discussed Ugaritic text dating from the middle of the second millennium BCE, Reseph is invoked in an astronomical context as the “gatekeeper” of the Sun.<sup>538</sup> As various scholars have pointed out, this text evidently identifies Reseph with the planet

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<sup>532</sup> *Rig Veda* I:114:5.

<sup>533</sup> P. Gössmann, *Planetarium Babylonicum* (Rome, 1950), p. 184.

<sup>534</sup> A. Kötz, *Über die astronomischen Kenntnisse der Naturvölker Australiens und der Südsee* (Leipzig, 1911), p. 46. See also W.G. Ivens, *Melanesians of the South-east Solomon Islands* (London, 1927), p. 396. This datum came to me courtesy of Rens van der Sluijs.

<sup>535</sup> L. Farnell, *The Cults of the Greek States, Vol. 4* (New Rochelle, 1977), pp. 133ff.

<sup>536</sup> M. Schretter, *Alter Orient und Hellas* (Innsbruck, 1974), pp. 174-216.

<sup>537</sup> W. Fulco, *The Canaanite God Rešep* (New Haven, 1976), p. 52.

<sup>538</sup> *UT* 143. See also J. Sawyer & F. Stephenson, “Literary and Astronomical Evidence for a Total Eclipse of the Sun Observed in Ancient Ugarit on 3 May 1375 B. C.,” *BSOAS* 33 (1970), pp. 468-469.

Mars, an identification supported by the fact that he is equated with Nergal in ancient god lists.<sup>539</sup>

It is significant to note that Apollo himself was much celebrated as a “gatekeeper” in ancient Greece—hence the epithet *Propylaios*.<sup>540</sup> And as we have noted earlier, citing the testimony of Aristophanes, the Greek god was intimately associated with gateways: “Aguieus, my neighbor, my hero, my lord! who dwellest in front of my vestibule gate.”<sup>541</sup>

In reviewing the evidence presented thus far I would submit that we have made a strong *prima facie* case for identifying Apollo with the red planet. In addition to the numerous features shared with the Latin god Mars, Apollo shares important characteristics with the Vedic Rudra and Semitic Reseph, both of whom are identifiable with the planet Mars. The fact that Apollo-like gods are found very early on in both the Semitic and Vedic pantheons confirms that we are not dealing with a simple diffusion of Babylonian astronomical conceptions. On the contrary, it would seem undeniable that the characteristic attributes of Apollo, Reseph, and Rudra long predate the dissemination of Babylonian astronomical religion. Rather than postulate a diffusion on a scarcely imaginable scale, it is more logical to understand the shared traits of the three gods as the product of long-term and careful observation of the planet Mars.

There is a wealth of evidence that can be brought to bear on this important question. In the *Iliad* Apollo is depicted as a plague-bringer.<sup>542</sup> Indeed, Homer describes the Greek god as a terrifying specter singled out for using poisonous arrows:

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<sup>539</sup> W. K. Schenkel, “Reschef,” *Lexikon der Ägyptologie*, Vol. 5 (Wiesbaden, 1983), p. 244.

<sup>540</sup> See the discussion in C. Faraone, *Talismans and Trojan Horses* (New York, 1992), pp. 59-64.

<sup>541</sup> Quoted from J. Harrison, *Epilegomena to the Study of Greek Religion and Themis* (New York, 1962), p. 410.

<sup>542</sup> *Iliad* I:8-10.

“Down he strode, wroth at heart, bearing on his shoulders his bow and covered quiver. The arrows rattled on the shoulders of the angry god as he moved; and his coming was like the night. Then he sat down apart from the ships and let fly a shaft; terrible was the twang of his silver bow. The mules he assailed first and the swift dogs, but thereafter on the men themselves he let fly his stinging arrows, and smote; and ever did the pyres of the dead burn thick.”<sup>543</sup>

That Apollo’s intimate association with plagues and pestilence-bringing arrows reflects ancient conceptions involving Mars is suggested by the fact that analogous beliefs surrounded the red planet elsewhere. In ancient Babylon, for example, the red planet was given the name “disease star” and thought to bring pestilence:

“Mars is said to portend pestilence or deaths in an astrological report...Mars and disease are also linked in an incantation addressed to Mars...where Mars is said to have caused a fever and is petitioned for its cure.”<sup>544</sup>

The fact that similar traditions surround the planet Mars in the New World lends additional credence to the possibility that there was a celestial dimension to Homer’s description of Apollo. Thus the Toba Indians of South America invoked the warrior-planet to aid them in battle: “At times of battle he had to help and allocate weapons and sharpen them and put poison on them, and endow the Toba warriors with fighting spirit.”<sup>545</sup>

It is to be noted that in South America, as in the Old World, the planet Mars was identified as the god of war. Yet it is the red planet’s explicit association with poisonous weapons that is most significant and parallels Homer’s description of Apollo.

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<sup>543</sup> *Iliad* I:44ff.

<sup>544</sup> F. Reynolds, “Unpropitious Titles of Mars in Mesopotamian Scholarly Tradition,” in J. Prosecky ed., *Intellectual Life of the Ancient Near East* (Prague, 1998), p. 353.

<sup>545</sup> R. Lehmann-Nitsche, “Mitología sudamericana,” *Revista del Museo de La Plata* 27(1923/1925), p. 272. Translation courtesy of Jan Sammer.

A curious aspect of Apollo's cult finds the god being invoked to rid the land of various pests. The epithet *Pornopion*, for example, marks the god as a locust and as a ridder of locusts.<sup>546</sup> Christopher Faraone offered the following observation on this curious state of affairs:

"In Greek-speaking Anatolia and a few other places, Heracles and Apollo were invoked with epithets that link them with agricultural pests and plagues. In each case the form of the epithet identifies them with the obnoxious disease or pest, while the etiology of the cult suggests that they (in animal form) were believed to be both the cause of the disease as well as an agent that could destroy the same pestilence or keep it at bay."<sup>547</sup>

Interestingly, indigenous cultures from the New World looked to the planet Mars to protect them from pests and vermin. The anthropologist Robert Lehmann-Nitsche chronicles this belief among the Toba Indians of South America: "The flies, the mosquitos and the gadflies, were exiled by the god Mars, whom the superior divinities ordered to exterminate all vermin that could hurt the creatures emerging from the courageous hearts of the principal deities."<sup>548</sup>

In Greek cult Apollo was intimately associated with medicine and the arts of healing, as evidenced by the epithet *Paeon*, "healer,"<sup>549</sup> the latter figure being celebrated by Homer as the physician of the gods. Here too a remarkable parallel exists in the cult of the Latin god Mars, who was invoked as a healer throughout ancient Europe.<sup>550</sup>

Certainly it is significant to find that the planet Mars was associated with healing in the New World as well. Among the Brazilian Sherente, who train their shamans under the

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<sup>546</sup> Strabo 13.1.64.

<sup>547</sup> C. Faraone, *Talismans and Trojan Horses* (New York, 1992), p. 128.

<sup>548</sup> R. Lehmann-Nitsche, "Mitologia sudamericana," *Revista del Museo de La Plata* 27 (1923/1925), p. 272.

<sup>549</sup> C. Kerényi, *The Gods of the Greeks* (London, 1982), p. 143.

<sup>550</sup> M. Green, *Symbol and Image in Celtic Religious Art* (London, 1992), pp. 114-115.

auspices of the respective planets, it is believed that “Mars’ pupils are considered good doctors.”<sup>551</sup>

One of the earliest epithets of Apollo, attested in Homer and elsewhere, is *akersekomas*, signifying “the longhaired.”<sup>552</sup> The same idea is evident in early Greek art as well, wherein Apollo was typically represented as long-haired youth: “A great number of Attic vase-paintings from the mid-sixth century B. C. through the Classical period, for instance, represent the god as young, beardless, and longhaired, sometimes indistinguishable from the sculptural type known as the *kouros*.”<sup>553</sup>

It is probable that Apollo’s long-flowing hair represents a vestigial remnant or reminiscence of ancient conceptions associated with the red planet. Thus, according to the aforementioned Sherente Indians, Mars was renowned for his long hair.<sup>554</sup>

It has now been documented that several of Apollo’s most archaic characteristics—his status as a war-god and long-haired *kouros*, together with his intimate association with poisonous arrows, healing, and the riddance of pests—are precisely mirrored by sacred traditions from aboriginal South America wherein the planet Mars is assigned analogous attributes. Far from being of an amorphous or general nature, the attributes in question are quite specific and conform exactly to those associated with Mars-gods in the Old World. Such evidence, coupled together with that presented elsewhere, constitutes compelling support for our claim that Apollo himself is best interpreted as a personification of the planet Mars.

Returning now to the subject of our study, it remains to ask how what we have learned about ancient beliefs associated with the Greek Apollo and the planet Mars can help

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<sup>551</sup> C. Nimuendaju, “The Íerenté,” *Publication of the Frederick Webb Hodge Anniversary Publication Fund, Vol. 4* (Los Angeles, 1942), p. 89.

<sup>552</sup> *Iliad* 20:39.

<sup>553</sup> D. Birge, “Sacred Groves and the Nature of Apollo,” in J. Solomon ed., *Apollo: Origins and Influences* (Tuscon, 1994), p. 13.

<sup>554</sup> C. Nimuendaju, *op. cit.*, p. 89.

illuminate the cults of the Germanic Tîwaz and his Latin counterpart Mars. When Snorri's *Edda* says of Tyr/Tîwaz that "He is the boldest and most courageous, and has power over victory in battle; it is good for brave men to invoke him,"<sup>555</sup> it is probable that the red planet is being described. It was the planet Mars that was conceptualized as an invincible warrior around the globe, and it was that planet's extraordinary *furor* that men sought to channel and emulate for their own military exploits. As the Toba of South America looked to the red planet to endow them with "fighting spirit" so, too, did the Skidi Pawnee of the American Plains model their warrior-furor on the same planet:

"As they are about to attack the enemy, they seek to become filled with the spirit of the war god. When so filled, they become ferocious or angry...They must at least pretend to be angry. Morning Star [Mars] is the war god and they are to act as if filled with his spirit."<sup>556</sup>

Such archaic ideas were inspired by celestial events and have absolutely no reference to the so-called tripartite structure of Indo-European society.

Tîwaz's apparent association with ancient ideas of a World Pillar, likewise, will never be explained by reference to this or that structure of ancient Indo-European society. Rather, such ideas trace to a celestial prototype and have specific reference to Mars' intimate relation to a luminous pillar-like apparition that spanned heaven during a previous age.<sup>557</sup>

The intimate association between Tîwaz and the archaic legal assembly known as *Thing* will also trace to celestial determinants. As we have documented elsewhere, the planet Mars was intimately associated with a celestial assembly, often in a judicial capacity.<sup>558</sup> Thus, Babylonian astronomical texts remember the red planet as "the star of judgment of

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<sup>555</sup> *The Prose Edda* as translated by J. Young (Berkeley, 1954), p. 53.

<sup>556</sup> J. Murie, "Ceremonies of the Pawnee," *Smithsonian Contributions to Anthropology* 27 (Cambridge, 1981), p. 128.

<sup>557</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 97-113.

<sup>558</sup> *Ibid.*, pp. 134-135.



the fate of the dead.”<sup>559</sup> An archaic epithet of Nergal/Mars was Lugal gu<sub>2</sub> si-a, “King of the assembled.”<sup>560</sup> Similar conceptions prevailed in ancient China, where the planet Mars was represented as a judge and invoked as the “Bringer of Justice.”<sup>561</sup>

The assembly associated with the planet Mars was *an assembly of stars*. A representative example of this widespread mythological theme is exemplified by the following Skidi Pawnee tradition reported by the anthropologist Alice Fletcher:

“Right over head there is a circle of stars, this is the council; in the center of this circle is one star, that is the servant of the chief, cooking over the fire.”<sup>562</sup>

According to Skidi skywatchers, this assembly of stars was presided over by the planet Mars, identified as the mythical Morning Star.<sup>563</sup> The astronomer Ray Williamson called attention to the primacy of the Skidi Morning Star in this regard:

“They [the Circle of Chiefs in the sky] remind us of the first council of stars that Morning Star governed.”<sup>564</sup>

As the Governor or judge of the celestial assembly, the planet Mars presided over an assembly of stars that formerly dominated the celestial landscape. It is this celestial assembly that served as the historical prototype for terrestrial assemblies such as the *Thing*.

To summarize our findings: Virtually everything we know about the Germanic god Tîwaz—his status as war-god, association with the *Thing*, and intimate association with

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<sup>559</sup> S. Langdon, “Semitic Mythology,” in L. Gray ed., *The Mythology of All Races* (New York, 1964), p. 147. See also E. von Weiher, *Der babylonische Gott Nergal* (Berlin, 1971), pp. 20-21.

<sup>560</sup> J. Peterson, “A New Occurrence of the Seven Aurae in a Sumerian Literary Passage Featuring Nergal,” *Journal of Ancient Near Eastern Religions* 8 (2008), pp. 173, 176.

<sup>561</sup> G. Schlegel, *Uranographie Chinoise* (La Haye, 1875), p. 627.

<sup>562</sup> Quoted in V. del Chamberlain, *When Stars Came Down to Earth* (Los Altos, 1982), p. 137.

<sup>563</sup> J. Murie, *op. cit.*, p. 42.

<sup>564</sup> J. Monroe & R. Williamson, *They Dance in the Sky* (Boston, 1987), p. 47.

ancient conceptions of the World Pillar—finds a close parallel in the cult of the Greek god Apollo. This evidence strongly supports the hypothesis that Tîwaz represents the Germanic counterpart to the Greek Apollo, the latter god himself being a close structural analogue to the Roman Mars. If so, it stands to reason that Tîwaz and Apollo, like the analogous gods Mars, Rudra, and Reseph, were each originally modeled on the planet Mars.

## 10. On Thundergods and Thunderbolts

“The thunderbolt...is the weapon of Zeus which he alone commands; it is irresistible, even gods tremble before it, and enemies of the gods are utterly destroyed when it strikes; in the face of such a manifestation of divine energy, man stands powerless, terrified and yet marveling.”<sup>565</sup>

Virtually every culture has preserved memory of a “thundergod,” a towering and terrifying figure whose *modus operandi* is the generation of lightning and the hurling of death-dealing thunderbolts from the sky. It is the unanimous view of scholars exploring ancient religion that the peculiar mythical traditions surrounding thundergods originated in primitive man’s awe before the thunderstorm. Hilda Davidson’s opinion may be cited as representing the orthodox position:

“To people of an earlier civilization, living in vulnerable houses of wood or in tents and caves, such a sight as this [a major thunderstorm] must have been terrifying indeed. It is not surprising then that thunder is visualized, in lands where storms are frequent, as the manifestation of divine power, and symbolized accordingly throughout the world.”<sup>566</sup>

The thundergod himself, according to this view, is an invisible Oz-like being acting behind the clouds to bring about the thunderstorm and its attendant visual and auditory phenomena. It is our opinion that such views are so wide of the mark as to be virtually worthless for understanding ancient myth and religion. In what follows we hope to offer a new interpretation of the thundergod as an *extraordinary and visible* planetary power. Aided by new discoveries in plasma physics, particularly as elucidated and reconstructed by Anthony Peratt, the curious mythology associated with the omnipresent thundergod suddenly begins to unravel, revealing a fascinating tale of interplanetary thunderbolts and apocalyptic cataclysm.

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<sup>565</sup> W. Burkert, *Greek Religion* (Cambridge, 1985), p. 126.

<sup>566</sup> H. R. Davidson, “Thor’s Hammer,” *Folklore* 76 (1965), p. 1.

## A Universal Archetype

A prominent character in ancient pantheons, shaman rites, and religious iconography, the thundergod often doubles as a god of war. The Inca god Illapa is a case in point:

“Lightning in Inca religion was the major theophany of the weather god, known as Ilyap’a, now usually hispanicized to Illapa...Illapa was also the god of war, of trade, and god of death. It was represented as a constellation outlining a man wielding a club in his left hand and a sling in his right.”<sup>567</sup>

The Egyptian Min offers an early example of the thundergod, his defining symbol appearing already on predynastic pottery and rock art tracing to the fourth millennium BCE (see figure one). In addition to serving as a god of storm and war, Min also featured prominently as an agent of fertility.<sup>568</sup>



**Figure one**

The ancient Semitic thundergod Hadad/Adad, whose name is thought to be cognate with Arabic *hdd*, “to thunder,” was likewise represented as a warrior.<sup>569</sup> Illustrations of the long-haired and bearded god holding an axe and/or lightning are common throughout ancient Mesopotamia (see figure two). Early epithets of the god, including *Bir-qu*, *Lugal-ri-Δa-mun*, and *Mer-ta-i-mu*, identify him as the lightning, King of the Hurricane,

<sup>567</sup> D. Gade, “Lightning in Folklife and Religion, Central Andes,” *Anthropos* 78 (1983), p. 775.

<sup>568</sup> A. McFarlane, *The God Min to the End of the Old Kingdom* (Sydney, 1995), pp. 351-360.

<sup>569</sup> M. Green, *The Storm-God in the Ancient Near East* (Winona Lake, 2003), p. 52. See also M. Pope, “Baal-Hadad,” in H. Haussig ed., *Götter und Mythen im Vorderen Orient* (Stuttgart, 1976), p. 254.

and thunderer respectively.<sup>570</sup> Adad is elsewhere represented as a promoter of fertility, a pattern we will discover in other thundergods around the world. Thus, an Assyrian prayer invokes Adad as follows: “thunderer, splendid, mighty god, terror, doughty warrior, who wields lightning, master of the deluge...you make abundant greenery.”<sup>571</sup>



**Figure two**

The most familiar example of the thundergod is the Greek Zeus, whose resemblance to Hadad was commonly acknowledged by the ancients themselves. Although the cult of Zeus was subject to profound evolution, often to the extent that his original nature was largely obscured,<sup>572</sup> the portrait of the god offered by our earliest sources is consistent and conforms to that of a prototypical agent of thunder, lightning, wind and rain.<sup>573</sup> It would also appear likely that the archaic Zeus was a god of war.<sup>574</sup> Walter Burkert describes the Homeric Zeus as follows:

<sup>570</sup> K. Tallqvist, *Akkadische Götterepitheta* (Helsinki, 1938), pp. 246-247.

<sup>571</sup> B. Foster, *From Distant Days* (Bethesda, 1995), p. 221.

<sup>572</sup> Thus, L. Farnell, *The Cults of the Greek States, Vol. 1* (New Rochelle, 1977), p. 53, comments upon “the universal activity attributed to Zeus, who on occasion could assume the special functions of nearly all the lower divinities.”

<sup>573</sup> *Ibid.*, p. 44 writes as follows: “The phenomena in the physical world which Zeus had under his especial care were the rain, the wind, and the thunder.”

<sup>574</sup> *Ibid.*, p. 59.

“Zeus, according to his Homeric epithets, is the cloud gatherer, the dark-clouded, the thunderer on high, and the hurler of thunderbolts; in colloquial speech one can say ‘Zeus is raining’ instead of ‘it is raining’; in Imperial times children were still singing, ‘Rain, rain, O dear Zeus, on the fields of the Athenians...A direct epiphany of Zeus is lightning; wherever it strikes, a sanctuary is set up to Zeus Descending, *Kataibates*. It was as a thunderbolt that Zeus laid his fatal embrace on Semele. The thunderbolt...is the weapon of Zeus which he alone commands; it is irresistible, even gods tremble before it, and enemies of the gods are utterly destroyed when it strikes; in the face of such a manifestation of divine energy, man stands powerless, terrified and yet marveling.”<sup>575</sup>

In ancient Europe the thundergod occupies a prominent place in early pantheons. The Norse Thor was both thunderer and warrior. The god’s name, cognate with the OHG Donar and Anglo-Saxon Thunor, derives from proto-Germanic \*Thunaraz and signifies “thunder.”<sup>576</sup> Words formed with the god’s name signified the weapons hurled from heaven. In Swedish lore, for example, thunderbolts were known as *thorvigg* or *thorkil*.<sup>577</sup>

The Finnish god Ukko shares numerous features in common with Thor. He, too, produces the thunder and lightning while controlling the weather.<sup>578</sup> The word *ukko*, like its diminutive *ukkonen*, came to signify “thunder.”<sup>579</sup>

It has long been recognized that Thor finds a close parallel in the Lithuanian Perkunas/Latvian Perkons, the latter god described as riding across the sky in a fiery chariot. The parallels between the two thundergods extend to the finest details and confirm their fundamental affinity and likely common ancestry. Witness the proverbial expression “*Perkons met savu milnu* ‘Perkons throws his mace.’” As Nagy points out,

<sup>575</sup> W. Burkert, *Greek Religion* (Cambridge, 1985), p. 126.

<sup>576</sup> J. Puhvel, *Comparative Mythology* (Baltimore, 1987), p. 201.

<sup>577</sup> J. Grimm, *Teutonic Mythology*, Vol. 1 (Gloucester, 1976), p. 179.

<sup>578</sup> U. Salo, “Agricola’s Ukko in the light of archaeology,” in T. Ahlback ed., *Old Norse and Finnish Religions and Cultic Place-Names* (Stockholm, 1990), p. 106.

<sup>579</sup> A. Siikala, “Ukko,” in M. Eliade ed., *The Encyclopedia of Religion*, Vol. 15 (New York, 1990), p. 115.

*milna* ‘mace’ is cognate with Old Norse *mjöllnir*, the word for Thor’s hammer.<sup>580</sup> The name of Thor’s mother—Fjörgynn—is also cognate with Perkunas.<sup>581</sup> And as Thor waged deadly combat with the Midgard serpent so, too, did Perkunas battle the Veles serpent.

The Slavic Perun offers an obvious cognate of Perkunas. Of the former god, it is known that his name came to signify a thunderbolt: “In Slavic, *perunu* designates both ‘thunderbolt’ and ‘thunder-god’.”<sup>582</sup> Russian folklore describes Perun as a great dragon-slayer.<sup>583</sup>

Parjanya, a thundergod of ancient India, offers yet another cognate to the Baltic Perkunas. The *Rig Veda* paints a powerful image of the god:

“He smites the trees apart, he slays the demons: all life fears him who wields the mighty weapon.”<sup>584</sup>

Parjanya is described as wheeling about in heaven in his chariot, dispensing the fertilizing rains:

“Forth burst the winds, down come the lightning-flashes: the plants shoot up, the realm of light is streaming...Come hither with this thunder while thou pourest the waters down, our heavenly Lord and Father. Thunder and roar: the germ of life deposit. Fly round us on thy chariot waterladen.”<sup>585</sup>

Parjanya is elsewhere identified with Indra (8:6:1), the latter being a quintessential example of the Indo-European thundergod. Indeed, the Vedic hymns describing Indra

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<sup>580</sup> G. Nagy, “Thunder and the Birth of Humankind,” in *Greek Mythology and Poetics* (London 1990), p. 183.

<sup>581</sup> *Ibid.*

<sup>582</sup> *Ibid.*

<sup>583</sup> J. Puhvel, *Comparative Mythology* (Baltimore, 1987), p. 234.

<sup>584</sup> V:83:2.

<sup>585</sup> V:83:4-7.

offer the most comprehensive portrait we have of the archaic thundergod. It is Indra who is said to have created the lightnings of heaven.<sup>586</sup> The Divine Warrior's devastating thunderbolt is the subject of countless hymns in the *Rig Veda*. The following hymn is representative in this regard:

"I will declare the manly deeds of Indra, the first that he achieved, the Thunder-wielder. He slew the Dragon, then disclosed the waters, and cleft the channels of the mountain torrents. He slew the Dragon lying on the mountain; his heavenly bolt of thunder Tvastr fashioned."<sup>587</sup>

The association of the thundergod with the slaying of a giant serpent threatening to destroy the world forms a recurring and apparently universal motif. Thus Thor was known as *orms einbani*, "sole slayer of the serpent."<sup>588</sup> The Iroquois thundergod is described as "having slain the great Serpent of the waters, which was devouring mankind."<sup>589</sup>

The dragon combat plays a prominent element in many ancient cosmogonies, as we have elsewhere documented, generally serving as a prelude to Creation.<sup>590</sup> Indra's battle with Vritra is an exemplary case in point, being central to ancient Indian ideas of cosmogony.

Glorious deeds aside, there are clear indications that Indra also had a darker side. Witness the following hymn: "And men have faith in Indra, the resplendent one, what time he hurleth down his bolt, his dart of death."<sup>591</sup> Countless hymns describe the destruction caused by Indra's bolts. Indeed, heaven itself reeled under Indra's onslaught: "Yea, even that heaven itself of old bent backward before thy bolt, in terror of its anger, when Indra, life of every living creature, smote down within his lair the assailing

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<sup>586</sup> I:13:7.

<sup>587</sup> I:32:1-3.

<sup>588</sup> H. Davidson, *op. cit.*, p. 90.

<sup>589</sup> H. Alexander, *op. cit.*, p. 24.

<sup>590</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 138-140.

<sup>591</sup> I:55:5.



dragon.”<sup>592</sup> In addition to shaking heaven and earth, Indra’s hurling of the thunderbolt was accompanied by terrifying sounds:

“Then both the heaven and earth trembled in terror at the strong hero’s thunder when he bellowed. Loud roared the mighty Hero’s bolt of thunder, when he, the friend of man, burnt up the monster [Vritra].”<sup>593</sup>

Despite his prominent status in the Vedic pantheon, scholars have long puzzled over Indra’s original nature. Herman Lommel summarized the futility of previous efforts as follows:

“Indra is the most celebrated and the most important god of the Vedas. Of all the ancient Indian gods his character has the largest number of facets and therefore his character is the most difficult to understand. If anybody understood it, he would have understood the major part of the Veda.”<sup>594</sup>

In our previous studies on Indra, we argued that the Vedic thundergod is to be identified with the planet Mars based upon his fundamental affinity with Heracles, Verethragna, and Vahagn, each of whom was identified with the red planet by their respective cultures.<sup>595</sup> The identification with Mars, although surprising at first sight, is actually the key to deciphering the multifaceted mythology surrounding the thundergod. Thus, as we have documented elsewhere, virtually every characteristic associated with Indra finds a close analogue in ancient conceptions associated with Mars.

### **The Lightning-hurling eye**

One of the more curious beliefs surrounding the lightning holds that it emanates from the region of the sun or, more specifically, from a sky-god’s eye. This idea is well attested in

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<sup>592</sup> V:17-8-9.

<sup>593</sup> II:11:9-10.

<sup>594</sup> H. Lommel, *Die alten Arier* (Frankfurt, 1935), p. 80.

<sup>595</sup> E. Cochrane, *op. cit.*, pp. 79-97.

ancient Greece, where it was believed that Zeus could produce lightning from his eye.<sup>596</sup> Aeschylus, for example, wrote as follows of the Greek thundergod: “The jealous eye of God hurls the lightning down.”<sup>597</sup> The same conception is implicit in Euripides’ *Bacchae*: “Unveil the Lightning’s eye.”<sup>598</sup>

Numerous scholars have observed that the image of Zeus casting lightning from his eye corresponds to a widespread belief.<sup>599</sup> In Hindu tradition, for example, Shiva was said to have been capable of throwing lightning from his third eye, located in the center of his head.<sup>600</sup>

Various cultures in Africa hold that lightning emanates from the sky-god’s eye. The Masai, for example, describe lightning as the “dreadful glance” of Ngai’s eye.<sup>601</sup>

Similar beliefs are attested amongst native peoples in North America. The Pawnee of the Nebraskan plains identify lightning with the “glance” of the thundergod Paruksti.<sup>602</sup> In Iroquois lore, it is said that when Thunder gets angry lightning flashes from his eye.<sup>603</sup> Other tribes, such as the Cree and Tlingit, describe the Thunderbird as capable of sending forth “lightnings from his eyes.”<sup>604</sup> The Chumash Indians of Northern California report that the twin gods known as the Thunderers shoot lightning from their eyes.<sup>605</sup> As to the popularity of this motif, Frazer remarks that “it is a common notion with the American

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<sup>596</sup> See here the extensive discussion in W. Roscher, *Die Gorgonen und Verwandtes* (Leipzig, 1879), pp. 63-71.

<sup>597</sup> *Agamemnon* 466.

<sup>598</sup> G. Murray, *The Collected Plays of Euripides* (London, 1954), p. 35.

<sup>599</sup> W. Schwartz, *Indogermanischer Volksglaube* (Berlin, 1885), pp. 169-179.

<sup>600</sup> D. Shulman, *Tamil Temple Myths* (Princeton, 1980), p. 58.

<sup>601</sup> P. Chemery, “Meteorological Beings,” M. Eliade ed., *The Encyclopedia of Religion*, Vol. 9 (New York, 1987), p. 489.

<sup>602</sup> E. Krupp, *Beyond the Blue Horizon* (Oxford, 1991), p. 105.

<sup>603</sup> H. Alexander, *op. cit.*, p. 24.

<sup>604</sup> *Ibid.*, p. 288.

<sup>605</sup> D. Miller, *Stars of the First People* (Boulder, 1997), p. 156.

Indians that thunder and lightning are caused by the flapping of the wings and the flashing of the eyes of a gigantic bird.”<sup>606</sup>

Analogous conceptions are common to the indigenous cultures of South America. Thus, the Desana of the Colombian rain forest hold that lightning is “a glance the Sun casts upon the earth.”<sup>607</sup>

How are we to understand this widespread belief whereby lightning is thought to emanate from a celestial eye? The aforementioned Desana tradition offers an important clue: for strange as it must appear to the modern mind, lightning is intimately connected with the ancient sun-god. But why should this be? In the current solar system, needless to say, lightning does not emanate from the sun.

That cultures around the world associated the ancient sun-god with an “eye” is well known. In a recent study of the sun in ancient rock art, Miranda Green documented the prevalence of this motif: “In Egypt, Greece and many other literate cultures of the ancient world, the all-seeing role of the sun gave it an association with the eye.”<sup>608</sup>



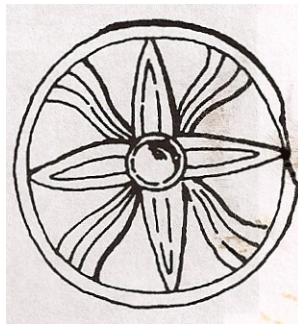
**Figure three**

<sup>606</sup> J. Frazer, *Myths of the Origin of Fire* (London, 1930), p. 124.

<sup>607</sup> G. Reichel-Dolmatoff, *Amazonian Cosmos* (Chicago, 1971), p. 98.

<sup>608</sup> M. Green, *The Sun-Gods of Ancient Europe* (London, 1991), p. 20.

It is instructive at this point to review the evidence from prehistoric rock art. Consider the pictograph shown in figure three, attested around the globe. As we have documented, this image was commonly thought to denote the sun-god's "eye."<sup>609</sup> This very image, in fact, is depicted on countless cylinder seals from ancient Mesopotamia, where it serves to symbolize Shamash, the Semitic sun-god. A closely related form is depicted in figure four. Here the inner "eye" of the ancient sun-god is given a star-like form and associated with a number of radiating filaments. The wavy nature of the radiating spokes naturally suggests streaming or radiant energy of some sort. Indeed, it stands to reason that the widespread traditions of ophthalmic lightning have some reference to the stellar image in question and to the celestial phenomenon depicted therein, however we are to understand the "lightning" from an astro-physical or electro-magnetic standpoint.



**Figure four**

### **The Sign of the Four**

As Talbott and I have documented, the aforementioned "sun" pictographs commemorate a particular phase in the polar configuration's history, one that gave rise to a host of mythical interpretations. One of the most common interpretations viewed the central orb and radiating streamers as four streams watering the primordial paradise.<sup>610</sup> The same scenario was alternately viewed as four winds or four pillars.<sup>611</sup> An early example of this

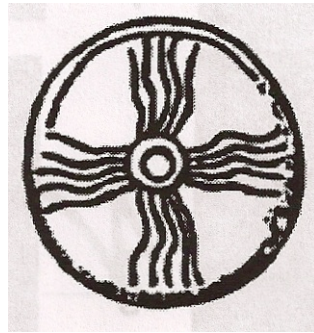
<sup>609</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 194-214.

<sup>610</sup> D. Talbott, *The Saturn Myth* (New York, 1980), pp. 120-133. See also the discussion in W. Gaerte, "Kosmische Vorstellungen im Bilde prähistorischer Zeit: Erdberg, Himmelsberg, Erdnabel und Weltenströme," *Anthropos* 9 (1914), pp. 978-979.

<sup>611</sup> D. Talbott, *Symbols of An Alien Sky* (Portland, 1997), pp. 108-113.

motif finds the Akkadian Shamash described as ruler of the four pillars: “From the high-point of Heaven you support pillars of the land (the four World angles).”<sup>612</sup>

Literary and pictorial traditions from around the world represent the ancient sun-god as associated with a four-fold pattern of streamers.<sup>613</sup> Figure five provides an example of this motif from the ancient Near East, although analogous images will be found around the globe.<sup>614</sup>



**Figure five**

Essential to understanding the mythical imagery in question is the thesis that the objective celestial reference was a series of planets in alignment, with Venus forming the “eye” or “heart” of the ancient sun-god and Mars forming the “pupil” of the Venusian eye. To the terrestrial skywatchers, the four-fold pattern of streamers appeared to emanate outwards from Venus/Mars and across the disc of the ancient sun-god.

It is probable that this particular celestial scenario contributed to the widespread tradition of four lightnings. The latter motif is aptly illustrated in Navaho tradition, where the lightnings are expressly related to the war-god:

<sup>612</sup> A. Jeremias, “Schamasch,” in W. Roscher ed., *Ausführliches Lexikon der griechischen und römischen Mythologie* (Hildesheim, 1965), col. 543.

<sup>613</sup> See the discussion in D. Talbott, *Symbols of An Alien Sky* (Portland, 1997), pp. 52, 60, 108-113.

<sup>614</sup> For comparable examples from the New World, see Å. Hultkrantz, *The Religions of the American Indians* (Berkeley, 1967), p. 52. For a parallel in Old Europe, see V. Straizys & L. Klimka, “Cosmology of the Ancient Balts,” *Journal of the History of Astronomy* 28 (1997), p. 66.

“In Navajo mythology the war-god, Nayanezgani, is clad all in flint, and from the joints of his flint armor flash the four lightnings, hurling his enemies down into the earth.”<sup>615</sup>

Among the god’s enemies is included a giant monster which threatened to destroy the world.

The pictograph in figure five presents a cross-like form set in the center of the so-called “sun.” Significantly, a cross was also associated with the thundergod in ancient Europe. This was the case with the Norse Thor, for example: “An equal-armed cross was already in use as a symbol in the heathen period, and seems to have been associated with Thor.”<sup>616</sup>

Similar conceptions surround the Vedic thundergod. Thus, Indra’s thunderbolt was described as “four-edged”: “Bull, hurler of the four-edged rain producer.”<sup>617</sup> We will return to the four-fold form of the thunderbolt below.

In addition to being likened to a cross, Thor’s thunderbolt was elsewhere represented with a swastika-like form on ancient monuments.<sup>618</sup> Davidson offered the following thoughts on this aspect of the thunderbolt’s iconography:

“Primarily it [swastika] appears to have had connection with light and fire, and to have been linked with the sun-wheel. It may have been on account of Thor’s association with the lightning that this sign was used as an alternative to the hammer, for it is found on memorial stones in Scandinavia beside inscriptions to Thor.”<sup>619</sup>

Davidson’s association of the swastika with the sun-wheel is right on target, Thor’s weapon elsewhere being described as a fiery wheel (see below). Yet Davidson’s

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<sup>615</sup> V. Del Chamberlain, *When Stars Came Down to Earth* (Los Altos, 1982), p. 25.

<sup>616</sup> H. Davidson, *op. cit.*, p. 10.

<sup>617</sup> *Rig Veda* IV:22:2.

<sup>618</sup> J. Grimm, *op. cit.*, Vol. 4, p. 1345.

<sup>619</sup> H. Davidson, *op. cit.*, p. 12.

hypothesis ignores the unfortunate fact that the current sun never presents a swastika-like form. Such realities of the modern heavens notwithstanding, the connection between the (ancient) sun and the swastika is universal in scope. Witness the following tradition from the Ofo Indians of Florida: “The Ofo called the swastika design *ila tata*, or ‘Sun middle.’”<sup>620</sup> Clearly the Ofo, like other indigenous peoples, believed that a swastika-like form was to be found in the center of the sun. While this tradition is difficult to understand by reference to the current sun’s appearance or behavior, it accords perfectly with descriptions of the ancient sun-god. In the ancient cylinder seal shown in figure six, for example, the wavy streamers of the “sun” present a swastika-like form.



**Figure six**

It is our opinion that the polar configuration hypothesis alone provides the key for understanding ancient references to the lightning/thunderbolt as a swastika-like form. Thus, as Cardona has argued,<sup>621</sup> there is a wealth of evidence that a swastika-like form appeared at some point during the polar configuration’s evolutionary history, the rotation of the four undulating streamers producing the appearance of a fiery swastika centered on the polar sun. Citing experiments by the plasma physicist C. J. Ransom, Cardona suggested a possible physical basis for the memorable celestial forms. Ransom obtained

<sup>620</sup> J. King, “A Southeastern Native American Tradition: The Ofo Calendar and Related Sky Lore,” *Archaeoastronomy* 14:1 (1999), pp. 115-116.

<sup>621</sup> D. Cardona, “The Cosmic Origin of the Swastika,” *Aeon* 4:5 (1996), pp. 17-28.

his results when ionized gases created in a glass cylinder were subjected to a magnetic squeeze:

“As the field frequency and intensity was increased the plasma began to rotate. At one point, if the field was held constant, a three-armed figure appeared, seemingly radiating from the center of the plasma. Then, if the frequency were increased linearly this figure commenced to rotate at an exponential rate until it was a blur. Of a sudden, the plasma seemed to cease rotating and a four-armed figure appeared, with each arm curving away from the center like a stylized fylfot or swastika. This too began to rotate increasingly with greater field intensity until it also was a blur, and then a five-armed pattern would emerge. Curiously, two-armed and multiple-armed figures have been observed, but the most common were those with three or four branches.”<sup>622</sup>

If the imagery of the swastika originated in spectacular events associated with the polar configuration, it stands to reason that the symbol would be associated both with the thundergod himself *and* with the ancient sun-god. That this is indeed the case is obvious from what has already been cited. It also stands to reason that the swastika would be intimately related to the various mythical interpretations of the wavy forms emanating from the central orb; i.e., streams of water, wind, pillars, hair, arrows, etc. Thus, it is most significant to find that the Maya knew the swastika as the “cross of four winds.”<sup>623</sup> A survey of the relevant literature would doubtless find similar associations between the swastika and the other mythical interpretations of the Venusian outflow.

### **The thundergod’s wheel**

A closely related conception views the lightning as generated from the “wheel” of the ancient sun-god. The Lithuanian Perkunas, for example, is said to have obtained his terrible weapon in the following manner: “The source of the lightning is the sun, the

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<sup>622</sup> *Ibid.*, p. 27.

<sup>623</sup> M. Preuss, “A Study of Jurakan of the Popul Vuh,” in E. Magana & P. Mason eds., *Myth and the Imaginary in the New World* (Laramie, 1986), p. 365, citing F. Ortiz, *El huracan* (Mexico City, 1946), pp. 186-187.



heavenly fire: the Thunder-god gets fire from the solar wheel by rotating his lightning-club in the nave of the solar wheel.”<sup>624</sup>

Once again we are presented with a tradition which emphasizes the indissoluble link between the ancient sun-god and lightning—in striking contradiction to the currently prevailing meteorological state of affairs. Also noteworthy is the fact that Perkunas’s lightning, like the aforementioned swastika-forms, originates in the *center* of the sun. This Baltic tradition finds a remarkable parallel in ancient Greek lore, where Prometheus is said to have first obtained fire for man by ascending to heaven and “kindling a torch at the sun’s fiery wheel.”<sup>625</sup> Servius described this event as follows: “It is said that Prometheus...ascended by the help of Minerva into the sky, and, applying a small torch to the wheel of the sun, stole fire.”<sup>626</sup>

Thundergods are frequently linked to wheel-like objects in ancient art and ritual. A krater from Lecce shows Zeus holding a wheel (see figure seven). In addition to his thunderbolt, the Latin Jupiter was frequently depicted together with a wheel in Celtic iconography. The Celtic Taranis, whose name signifying “thunder” is cognate with that of the Norse Thor, is likewise pictured together with a wheel, prompting Green to state with respect to Celtic iconography that “the thunderbolt was a recurrent associate of the wheel-sign.”<sup>627</sup>

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<sup>624</sup> M. Gimbutas, “Perkunas/Perun: The Thunder God of the Balts and Slavs,” *Journal of Indo-European Studies* 1 (1973), p. 475.

<sup>625</sup> J. Frazer, *Myths of the Origin of Fire* (London, 1930), p. 194.

<sup>626</sup> Servius, on Virgil, *Eclogue VI*, 42 as quoted in A. Cook, *Zeus, Vol. I* (New York, 1964), p. 324.

<sup>627</sup> M. Green, *Symbol and Image in Celtic Religious Art* (London, 1989), pp. 118-120. See also the discussion in A. Cook, *op. cit.*, pp. 288-290.



**Figure seven**

Also relevant here is a fact noted earlier: Thor's thunderbolt was expressly compared to a fiery wheel. Thus, Jacob Grimm described the curious rites that were still being practiced as late as 1779 in Europe:

“The latter ceremony [the so-called ‘wheel-rolling’ near Trier], mentioned first in 1550 and last in 1779, took place thus. On the Thursday in Shrove-week an oak was set up on the Marxberg (Donnersberg, Dummersberg), also a wheel. On Invocavit Sunday the tree was cut down, the wheel set on fire and rolled into the Moselle. A wheel, especially a flaming one, is the symbol of thunder, of Donar.”<sup>628</sup>

Prehistoric rock art once again serves to illuminate these widespread traditions linking thundergods with flaming wheels. As we have documented, the “wheel” of the ancient sun-god is depicted in figure eight, a common image in prehistoric rock art.<sup>629</sup> Grant the possibility that such an image was once visible in the northern polar skies and the widespread traditions of a “solar wheel” no longer appear fantastic in nature. On the contrary, such traditions suddenly appear self-evident and perfectly rational. Equally important, however, is the acknowledged resemblance of figure eight to figure three. Indeed, the only difference between the two symbols is that in the former figure the inner orb has sprouted “rays” or radiating “spokes,” thereby presenting the image of a four or

<sup>628</sup> J. Grimm, *op. cit.*, p. 1348.

<sup>629</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 118-123.

eight-spoked wheel. (That the wheel-like image is likely the result of an electrical/plasmatic discharge has been argued by Wal Thornhill and Dave Talbott.<sup>630</sup>)



**Figure eight**

In the Saturn model, each of the planets participating in the polar configuration plays a distinctive role with respect to the wheel-like phase. If the radiating streamers of the Venus-star represent the “spokes” of the wheel, the conjoined orbs of Venus and Mars constitute the “nave.” Mars itself forms the “axle” of the sun-centered wheel. And as we have documented, various warrior heroes identified with Mars are said to reside at the “nave,” where they “move” or otherwise govern the “axle” of the solar wheel. Indra, for example, was invoked as follows:

“Thou movest...Bold One, the axle of the car. Satakratu [Indra], thou...stirrest the axle with thy strength.”<sup>631</sup>

Indra’s “stirring” of the wheel’s axle offers a striking mythical analogue to Perkunas rotating his lightning-club in the nave of the solar wheel.

### **The World Pillar**

In order to understand the mytho-historical context and multivalent imagery of the thundergod and his weapon, it is necessary to consider the dynamic history of the polar configuration. As the polar configuration evolved through time, the various planets

<sup>630</sup> D. Talbott & W. Thornhill, *Thunderbolts of the Gods* (Portland, 2005).

<sup>631</sup> I:30:14.

moved up and down the axis, alternately growing larger and smaller while moving in and out of conjunction with each other. At various times Venus and Mars became displaced from their axial location, thereby producing a kaleidoscopic montage of celestial forms for mesmerized terrestrial skywatchers and mythmakers. It is also likely that the plasma enveloping the various planets underwent dramatic changes in form and luminous intensity, thereby producing spectacular lightning-like discharges and iridescent aurora-like effects (more on which later). The planet Mars, for example, assumed a number of different positions within the polar configuration during distinct phases in the configuration's history. Insofar as Mars was identified with the thundergod, it stands to reason that the symbolism attached to the thundergod and his weapon most likely reflects this evolving history. A case in point is the lightning/thunderbolt's intimate connection with ancient conceptions of the *axis mundi*.

A particularly memorable phase in the evolutionary history of the polar configuration found the planet Mars leaving the central "eye" of Saturn and descending to a position closer to Earth. Astronomically, the "descent" of Mars was apparently the result of its elliptical orbit, which brought it alternately close to Venus at the apex of its orbit and closer to Earth (and thus beneath Saturn and Venus) during its descent along the shared polar axis.

A widespread theme associated with the descent of the warrior-hero was the formation of the World Pillar, the latter conceived as a tangible column of luminous material stretching between Mars and Earth and appearing to support the ancient sun-god. As we have documented elsewhere,<sup>632</sup> various war-gods identifiable with the planet Mars are celebrated for upholding the heavens in pillar-like fashion—Apollo, Rudra, \*Tîwaz, Shu. And the same holds true with respect to archaic thundergods. In Vedic lore, for example, Indra was said to support heaven like a pillar (see chapter one):

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<sup>632</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 97-114.

“He who, just born...Who measured out the air’s wide middle region and gave the heaven support, He, men, is Indra.”<sup>633</sup>

The Greek Zeus was likewise intimately associated with the World Pillar. Cook summarizes the evidence surrounding the Italian cult of Zeus at Tarentum as follows:

“Sacrifices were offered on pillars to the lightning-god Zeus *Kataibates*—a practice which, as we saw, had probably been inherited from ‘Minoan’ times. Apulian and Campanian vases, also, represent Zeus fulminant on the top of a pillar. Altogether, it looks as though there were in south Italy an old belief that Zeus with his lightnings dwelt on high above an obvious tangible pillar, his vehicle and support.”<sup>634</sup>

The intimate connection between the solar wheel and *axis mundi* would appear to explain the fact that the latter is occasionally described as having eight angles or corners. This idea forms a prominent theme in the sacred literature and architecture of ancient India, as Coomaraswamy has documented: “The Axis of the Universe according to the texts as represented is usually cylindrical or four or eight-angled: early Indian pillars are usually either cylindrical or eight-angled.”<sup>635</sup>

A vestige of such archaic conceptions, perhaps, is to be found in certain rites practiced in the late Middle Ages, wherein youths celebrated a scapegoat-like rite around a Jupiter column described as “eight-cornered.” According to Grimm’s summary of the ritual, the central scene involved the burning of the Jupiter column: “The schoolboys dressed it in a cloak and crown, and attacked the Jupiter as they then called it, by throwing stones first from one side, then from the other, and at last they burnt it.”<sup>636</sup>

Why the *axis mundi* would be regarded as four or eight angled is difficult to understand apart from the thesis defended here, which views the *axis mundi* as a luminous pillar-like

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<sup>633</sup> II:12:1-4.

<sup>634</sup> A. Cook, *op. cit.*, Vol. 2, p. 45.

<sup>635</sup> A. Coomaraswamy, *Symbolism of Indian Architecture* (Jaipur, 1983), p. 42.

<sup>636</sup> J. Grimm, *op. cit.*, p. 190.

form descending from the solar wheel. The solar “wheel” itself, as we have seen, is alternately presented with either four or eight “spokes” or “angles.”

A related conception finds the thunderbolt being ascribed an octagonal shape. The following tradition from the *Aitareya Brahmana* describing the sacrificial pillar is of interest here: “The post is a thunderbolt; it should be made of eight corners; the bolt is eight-cornered.”<sup>637</sup>

### **The Descent of Mars**

In addition to forming a pivotal event in the biography of the warrior hero, the cataclysmic descent of Mars is of paramount importance for a proper understanding of the mythology surrounding the thundergod and his fiery weapon. As Blinkenberg documents at great length, lightning is thought to fall down from heaven as a stone:

“The thunderstone falls down from the sky in thunderstorms or, more accurately, whenever the lightning strikes. The stroke of the lightning, according to this view, consists in the descent of the stone; the flash and the thunder-clap are mere after-effects or secondary phenomena.”<sup>638</sup>

Meteorites, in accordance with this belief, were identified with thunderstones throughout the ancient world.<sup>639</sup> As a testament to the durability of these archetypal traditions, Blinkenberg reports that: “In modern times meteors have in several places been looked upon as thunderstones.”<sup>640</sup>

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<sup>637</sup> *AB* 2:1:3.

<sup>638</sup> C. Blinkenberg, *The Thunderweapon in Religion and Folklore* (Cambridge, 1911), p. 1.

<sup>639</sup> *Ibid.*, p. 13. For a similar opinion see G. A. Wainright, “Letopolis,” *Journal of Egyptian Archaeology* 18 (1932), p. 161: “In religion the meteorite and the thunderbolt are the same thing.”

<sup>640</sup> C. Blinkenberg, *op. cit.*, p. 13.

It is doubtless in keeping with these widespread traditions identifying thunderbolts with meteorites that thundergods everywhere are described by epithets signifying “stone thrower.” The Yoruba thundergod Shango, to take but one of countless examples, was also known as *Jakuta*, “the stone thrower.”<sup>641</sup> So, too, is Indra’s thunderbolt compared to a rock hurled from heaven. Here Gonda observes: “Although Indra’s weapon is usually explicitly designated by the term *vajra*, and *vajra* is generally described as metallic (*ayasa*), it is incidentally spoken of as a rock (*parvata*) or ‘stone of, or: from, the heavens’ (*divo asmanam*).”<sup>642</sup> No ordinary rock, Indra’s thunderbolt is described as “whirling down from the misty realm of the sun (*Surya*).”<sup>643</sup>

Similar conceptions are apparent in the traditions surrounding the Greek Zeus. The epithet *Kataibates* signifies “the descender” or “he who comes down.”<sup>644</sup> As Farnell noted, this epithet appears to hark back to an archaic form of thought in which the god and his weapon were not yet distinguished:

“The descending Zeus is the Zeus that descends in the rain or lightning... This naïve belief that the god himself came down in the lightning or the meteor is illustrated by the story which Pausanias found in the neighborhood of Gythium about a sacred stone, a *lithos argos*... There is much to be said for the view that the term means ‘the falling god,’ ... We are here touching on a stratum of thought infinitely older than the Homeric.”<sup>645</sup>

It is probable that such traditions have their original point of reference in the spectacular appearance of the red planet as it descended from Saturn/Venus towards Earth, as if it were a gigantic boulder or bolide hurled from on high. That the fall of Martian meteorites accompanied this event is possible and likely contributed to the mythical

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<sup>641</sup> S. Lagercrantz, “Der Donnerkeil im Afrikanischen Volksglauben,” *Etnologiska Studier* 10 (1940), p. 29.

<sup>642</sup> J. Gonda, *Epithets in the Rig Veda* (S-Gravenhage, 1959), p. 63.

<sup>643</sup> *Rig Veda* X:27:21.

<sup>644</sup> F. Graf, “Zeus,” in S. Hornblower et al eds., *The Oxford Classical Dictionary* (Oxford, 1996), p. 1636.

<sup>645</sup> L. Farnell, *op. cit.*, p. 46.

imagery as well.<sup>646</sup> Certainly it is no accident that a universal motif finds Martian heroes being hurled or otherwise cast from heaven for one crime or another. The traditions surrounding Helel ben Shahaar (Lucifer), Tezcatlipoca, and Phaethon are exemplary here and could be multiplied *ad infinitum*.<sup>647</sup>

### **Lightning as fire from heaven**

In our discussion of the sacred marriage rite, we noted that a recurring theme around the world viewed the drilling of fire as a cosmogonical act, commemorating the primeval union of male and female powers (see chapter three). In Pawnee lore such ideas were specifically connected to the planets Mars and Venus. Thus, a primary motif in the Pawnee account of the Creation holds that Mars first approached and then overcame Venus, whereupon he succeeded in impregnating her and insuring fertility for the world in the process. In addition to rites designed specifically to commemorate this primeval union of male and female powers, the Pawnee believed that they were celebrating the marriage of Venus and Mars every time they generated a fire, the drilling stick representing the male Mars and the horizontal stick the female power.<sup>648</sup>

Martian gods and heroes are everywhere celebrated for “drilling” the first fire. Prominent examples of this motif include Indra, Tezcatlipoca, and Maui. In Vedic lore, for example, Indra creates the fire by rubbing two stones together. Thus, the thundergod is described as having “begat the fire between the two stones.”<sup>649</sup> In the *Satapatha Brahmana* Indra is invoked as the “Kindler.”<sup>650</sup>

The Greek hero Prometheus, whom Servius described as obtaining his fire from the sun’s wheel, was said by Diodorus to have been the “inventor of the fire-sticks, from which fire

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<sup>646</sup> E. Cochrane, “Martian Meteorites in Ancient Myth and Modern Science,” *Aeon* 4:2 (1995), pp. 57-73.

<sup>647</sup> E. Cochrane, “Mars Gods of the New World,” *Aeon* 4:1 (1995), pp. 58-63.

<sup>648</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 25-34.

<sup>649</sup> *Rig Veda* II:12:1-4. Ralph Griffith, the editor of the *Rig Veda*, adds that this is a reference to Indra’s generating “lightning between heaven and earth.”

<sup>650</sup> VI.1. 1, 2.



is kindled.”<sup>651</sup> Arthur Cook, while disavowing previous attempts to link the Greek hero’s name to the Sanskrit term *pramantha*, “fire drill,” would nevertheless relate the latter term to an epithet of Zeus’s: “It is highly probable that *pramantha* the ‘fire-drill’ does explain *Promantheus*, a title under which Zeus was worshipped at Thourioi.”<sup>652</sup>

That many ancient peoples identified the planet Mars as the “fire-star” is well-documented.<sup>653</sup> So, too, is the fact that numerous thundergods double as “fire” gods. In the Lithuanian cult of Perkunas, for example, a sacred fire was kept. If for some reason the fire was allowed to go out, the priest in charge was put to death.<sup>654</sup> A sacred fire is also attested in Thor’s cult. Thus, the *Kjalnesinga Saga* describes the thundergod’s altar as follows:

“This was the place for the fire which was never allowed to go out. This they called the sacred fire.”<sup>655</sup>

It is also interesting to note the Lappish custom of using images of Thor to strike fire. A text from the seventeenth century describes the god’s idol as follows: “Into his head they drive a nail of iron or steel, and a small piece of flint to strike fire with, if he hath a mind to do it.”<sup>656</sup>

Like the thundergod himself, the planet Mars was conceptualized as an agent promoting fertility and sexual prowess. The Australian Waijungari offers a primary illustration of this motif. Expressly identified with the red planet, it was said that the warrior-hero had an insatiable sexual appetite and personified sexual activity and fertility.<sup>657</sup>

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<sup>651</sup> A. Cook, *op. cit.*, Vol. I, p. 325.

<sup>652</sup> *Ibid.*, p. 330.

<sup>653</sup> W. Eilers, *Sinn und Herkunft der Planetennamen* (München, 1976), pp. 74-75. See also E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 25ff.

<sup>654</sup> M. Gimbutas, *op. cit.*, p. 469, citing Johannes Dlugosz’ *Chronicle* written in the period between 1455 and 1480.

<sup>655</sup> H. Davidson, *Gods and Myths of Northern Europe* (Baltimore, 1964), p. 79.

<sup>656</sup> *Ibid.*, p. 78.

<sup>657</sup> D. Johnson, *Night Skies of Aboriginal Australia* (Sydney, 1998), p. 35.

The sacred marriage and New Fire rites provide the essential background for understanding certain peculiar traditions surrounding the thundergod. The aforementioned tradition wherein Perkunas generates fire by rotating his lightning club is a case in point: “The source of the lightning is the sun, the heavenly fire: the Thunder-god gets fire from the solar wheel by rotating his lightning-club in the nave of the solar wheel.”<sup>658</sup>

The rotary action of Perkunas’ “club” in the nave of the solar wheel offers a precise mythical parallel to the Martian hero’s drilling of fire that, in turn, offers a precise parallel to Mars’ union with Venus. Each of these mythical interpretations, in our view, has reference to Mars’ behavior while in conjunction with Venus. Indeed, the Martian hero’s “drilling” or “boring” is an endlessly recurring motif, the Homeric account of Odysseus’ boring out of the Cyclops’ eye being perhaps the most famous example. That Odysseus’ “eye-drilling” has often been compared to the drilling of fire ought to surprise no one familiar with the lore surrounding the warrior-hero.<sup>659</sup>

### **The thunderbolt as mill-stone**

A recurring tradition makes the thunderbolt a crushing instrument of some sort. This idea is apparent in the name of Thor’s bolt, *mjölnir*, which signifies “the crusher” or “pulverizer.” According to Montelius, the word “refers to the terrible power of the hammer to crush whatever it encountered.”<sup>660</sup> Cognate with words signifying “lightning” in various languages (Russian *molnija*, for example), the Norse *mjölnir* is also an apparent cognate of the Old Norse *mala*, “grind” and *molva*, “crush.”<sup>661</sup>

Other cultures also preserved traditions linking the thundergod with grinding. Thus, a central rite in the Hittite New Year’s celebration honoring the thundergod involved the

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<sup>658</sup> M. Gimbutas, *op. cit.*, p. 475.

<sup>659</sup> A. Cook, *op. cit.*, pp. 317-323.

<sup>660</sup> O. Montelius, “The Sun God’s Axe and Thor’s Hammer,” *Folklore* 21 (1910), p. 70.

<sup>661</sup> J. de Vries, *Altnordisches Etymologisches Wörterbuch* (Leiden, 1977), p. 390.

breaking of a sacred pithos and the grinding and milling of its contents.<sup>662</sup> A semantic link between thunderstones and “grindstones” is also discernable in Inca lore.<sup>663</sup> Russian peasant lore, which transferred Perun’s mythology to St. Ilia with the onset of Christianity, preserves a curious link between the rambling of the thundergod’s chariot and “grinding”: there thunder is alternately ascribed to St. Ilia’s driving his chariot or “grinding his corn.”<sup>664</sup>

It is probable that the “grinding” motion associated with the thunderbolt is intimately related to its function as a driller of fire, as both activities rely on rotary motion and friction. During the prehistoric period, fire was generated by rubbing two sticks or rocks together. In Vedic lore, as we have seen, Indra creates the fire by rubbing two stones together.

The Finnish god Ukko was especially associated with the striking of fire and those stones like quartz which were thought to produce fire. Thus, the name *ukonkivi*, “thunderstone,” came to signify quartz. Here, too, scholars have recognized an intimate connection between the ancient thundergod and the generation of fire: “The name may be derived from the fact that pieces of quartz flare up if they are rubbed or struck together.”<sup>665</sup>

The Norse word *mjöllnir* is also related to the English word miller, and scholars have long recognized a relationship between Thor’s thunderbolt and millstones.<sup>666</sup> With reference to the Vedic passage wherein Indra rubs stones together in order to generate “fire” or lightning, it is significant to find the Slavic Perun described as generating thunder and fire by grinding together two giant millstones.<sup>667</sup> Especially significant is a modern proverb likening thunder to the fiery wheeling of Perun’s chariot: “God is

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<sup>662</sup> P. Cate, “The Hittite Storm God: his Role and his Rule According to Hittite Cuneiform Sources,” in D. Meijer, *Natural Phenomena* (Amsterdam, 1992), pp. 91-92.

<sup>663</sup> W. Sullivan, *The Secret of the Incas* (New York, 1996), p. 175.

<sup>664</sup> J. Grimm, *op. cit.*, p. 166.

<sup>665</sup> U. Salo, *op. cit.*, p. 108.

<sup>666</sup> J. Puhvel, *op. cit.*, p. 234.

<sup>667</sup> *Ibid.*, p. 234.

coming—the wheels are striking fire.”<sup>668</sup> Here we recognize a slight variation upon the aforementioned tradition surrounding St. Ilia, yet instead of thunder being ascribed to Ilia’s “grinding,” it is here traced to Perun’s gnashing “wheels.”

### **The Thunderbolt as Fructifier of the Earth**

A universal belief finds the thunderbolt (or lightning) regarded as a fertilizing force. Indeed, the idea is so common in ancient myth and modern folklore that it is usually taken for granted as if it somehow makes sense in terms of the customary behavior of lightning. The thunderbolt’s striking the earth, together with the accompanying rain, is thought to “fertilize” or “inseminate” the earth.

The Desana Indians of Colombia, for example, hold that “lightning...is a fertilizing force that impregnates the earth with its crystal-semen.”<sup>669</sup> More precisely, the lightning is regarded as the Sun’s ejaculation or semen or, with specific reference to the latter’s eye, as a “fertilizing glance.”

Every Old World thundergod worth his salt doubles as an agent of fertility. Marija Gimbutas described the Lithuanian Perkunas as follows: “The earth is barren until the Thunder strikes her in the springtime—until in his epiphany of thunder Perkunas weds the Mother Earth, Zemyna.”<sup>670</sup> Such beliefs, according to Gimbutas, “are universal [among the Balts and Slavs] and certainly stem from very early times.”<sup>671</sup>

Of the Latvian thundergod, Biezais has written: “The function of Perkons is clearly defined: he is a fertility god.”<sup>672</sup> The Indian Parjanya was also deemed an agent of fertility. Witness the following prayer from the *Rig Veda*:

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<sup>668</sup> M. Gimbutas, *op. cit.*, p. 466.

<sup>669</sup> G. Reichel-Dolmatoff, *op. cit.*, p. 98.

<sup>670</sup> M. Gimbutas, *op. cit.*, p. 471.

<sup>671</sup> *Ibid.*

<sup>672</sup> H. Biezais, “Perkons,” M. Eliade ed., *The Encyclopedia of Religion*, Vol. 11 (New York, 1990), p. 247.

“May this my song to Sovran Lord Parjanya come near unto his heart and give him pleasure. May we obtain the showers that bring enjoyment, and God-protected plants with goodly fruitage. He is the Bull of all, and their impregner.”<sup>673</sup>

Similar conceptions prevailed with respect to the Norse Thor. Thus, Adam of Bremen described Thor as follows: “They say he rules the air which controls the thunder and the lightning, the winds and the showers, the fair weather and the fruits of the earth.”<sup>674</sup> Also relevant here is a curious scene in *Thrym’s Song*, or “The Fetching of the Hammer,” wherein Thor disguises himself as Freya in order to regain his thunderbolt, which had earlier been stolen by the giant Thrym. There we read:

“Bring the hammer the bride to wed, place Mjöllnir in the maiden’s lap.”<sup>675</sup>

As Davidson points out, such ideas hark back to ancient conceptions of the thunderbolt as fecundator or impregner, some of which survived well into modern times. Thus it is that Thor was frequently invoked at weddings, the god’s thunderbolts forming a prominent feature of many a bridegroom’s attire: “In certain parts of Norway and Sweden, it continued to be the custom for a bridegroom to bear an axe at the wedding long after Thor was forgotten; the weapon was said to give him mastery, and also to ensure a fruitful union.”<sup>676</sup>

Analogous ideas surround the Lithuanian thundergod. Thus, Perkunas’s axes were commonly regarded as promoters of fertility:

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<sup>673</sup> VII:101:5-6.

<sup>674</sup> *History of the Bishops of Hamburg*, IV, 26.

<sup>675</sup> Lines 29-32 as quoted in O. Montelius, *op. cit.*, p. 71.

<sup>676</sup> H. Davidson, *op. cit.*, p. 11.

“In Lithuania, the axe as a life-stimulating symbol, is laid under the bed of a woman in labor; on the sill to be crossed by the newly-wedded couple...During sowing, axes were thrown onto the field.”<sup>677</sup>

Strikingly similar conceptions are widely attested throughout Africa. The Yoruba identify stone axes with thunderstones hurled by Shango and, believing they lead to a good harvest, place them amongst the seeds.<sup>678</sup>

As thunderstones were thought to promote fertility so, too, were they deemed capable of sparking the flames of passion. Witness the curious set of beliefs attached to the Inca thundergod known as Apocatequil:

“He it was, they thought, who produced the thunder and lightning by hurling stones with his sling; and the thunderbolts that fall, said they, are his children. Few villages were willing to be without one of these. They were in appearance small, round, smooth stones, but had the admirable properties of securing fertility to the fields, protecting from lightning, and, by a transition easy to understand, were also adored as gods of the Fire, as well material of the passions, and were capable of kindling the dangerous flames of desire in the most frigid bosom. Therefore they were in great esteem as love charms.”<sup>679</sup>

Here, in one figure, are united the various motifs of the thundergod as a hurler of stones, agent of fertility, and God of Fire.

The Finnish god Ukko was apparently involved in a *hieros gamos* of sorts, designed to facilitate the fertility of the land.<sup>680</sup> In a poem written in 1551, Agricola refers to these ancient practices in somewhat veiled language:

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<sup>677</sup> M. Gimbutas, “Perkunas/Perun: The Thunder God of the Balts and Slavs,” *Journal of Indo-European Studies* 1 (1973), p. 476.

<sup>678</sup> S. Lagercrantz, *op. cit.*, p. 8.

<sup>679</sup> D. Brinton, *The Myths of the New World* (New York, 1968), pp. 184-185.

<sup>680</sup> U. Salo, “Agricola’s Ukko in the light of archaeology,” in T. Ahlback ed., *Old Norse and Finnish Religions and Cultic Place-Names* (Stockholm, 1990), pp. 104-107, 182.

“And when the spring sowing was done, then the old man’s [Ukko] toast was drunk. For this was Ukko’s wooden vessel fetched, and the girl and the wife got drunk. Then were shameful things done there, as was both heard and seen. When Rauni Ukko’s woman huffed, greatly puffed Ukko from the depths. Thus it gave weather and the new crop.”<sup>681</sup>

Like his Inca counterpart, Apocatequil, Ukko was intimately associated with elliptical “fire” stones. In a monograph exploring the evolution of Ukko’s cult, Salo offered the following summary:

“His functions included assuring the fertility of the soil, the growth of crops and the yearly harvest. This took place in the holy marriage of Ukko and his spouse: in flashes of lightning, the rumble of thunder and thundery rain. Ukko may have celebrated such holy marriages from his very arrival but no firm evidence of them appears until the Iron Age with the coming of elliptical fire stones (ca. 50-700) and the elliptical rimmed fire steels that followed them. Since the use of these continued from Merovingian times (550-800) until the advent of matches it is understandable that the *hieros gamos* myth was still a living folk belief during Agricola’s time. Similar beliefs were also preserved among the Swedish-speaking population of Ostrobothnia until recent times, apparently as a tradition going back to their medieval arrival in Finland. The symbolic shapes of the fire stones and fire steels indicate that the secular striking of fire was looked upon as a rite repeating the myth of the origin of celestial fire.”<sup>682</sup>

Such traditions raise a host of questions. Why would thunderstones be regarded as promoters of fertility? Why would lightning be compared to a “fertilizing glance”? The orthodox claim that these beliefs have reference to the fertilizing properties of the thunderstorm does not provide an obvious reference for the glancing “eye” nor does it account for the stone itself or for its curious “crushing” behavior. The key to understanding such traditions is Mars’ conjunction with Venus: it was the conjunction of these two planets that provided the celestial prototype for the sacred marriage of male and

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<sup>681</sup> Quoted from *Ibid.*, p. 104.

<sup>682</sup> *Ibid.*, pp. 182-183.

female powers. As Mars ascended the polar column and “penetrated” Venus, it was viewed to have impregnated the celestial embodiment of the fertile “earth.” Hence the thundergod’s archetypal status as an “impregner.” Insofar as the Martian thundergod is identifiable with his “weapon,” we can understand the fertilizing powers ascribed to “thunderstones.” And insofar as Mars’ union with Venus was conceptualized as a “drilling” we can understand the fact that the ancient Swedes—like the Skidi Pawnee—recognized a *hieros gamos* of celestial powers behind the drilling of fire.

Yet the conjoined bodies of Mars and Venus also formed the central “eye” of the ancient sun-god. It was from this “eye” that lightning appeared to emanate to the four corners of heaven. Given the fact that lightning was witnessed to proceed from the “eye” enclosing the thundergod (Mars), it stands to reason that it would be compared to a fertilizing “glance” emanating from a celestial “eye” (see figure five).

### **The thundergod as unerring marksman**

Of Thor’s weapon, it was said: “If he threw the hammer, it would never miss the mark and never go too far to return again to his hand.”<sup>683</sup> In this tradition we recognize the universal theme of the unerring marksman.

Like Thor, Heracles, Indra, Rudra, Murukan, and countless other divine “Champions” are said to be unerring marksmen. The Tamil Murukan, known as the “killer of serpents,” was famed for his “javelin which never misses its mark” and, upon being thrown, always returned to his hand.<sup>684</sup> Of Skanda’s spear, it was said that “it never misses the mark but, once thrown, returns to him.”<sup>685</sup> Skanda, in turn, was explicitly identified with the planet Mars.<sup>686</sup>

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<sup>683</sup> O. Montelius, “The Sun God’s Axe and Thor’s Hammer,” *Folklore* 21 (1910), pp. 70-71.

<sup>684</sup> K. Zvelebil, “A Guide to Murukan,” *Journal of Tamil Studies* 9 (1976), pp. 5, 19.

<sup>685</sup> A. Keith, “Indian Mythology,” in L. Grey ed., *The Mythology of All Races, Vol. 6* (Boston, 1917), p. 140.

<sup>686</sup> S. Markel, *Origins of the Indian Planetary Deities* (Lewiston, 1995), pp. 40-41.



Of the Vedic war-god Rudra, it was said that his heaven-hurled arrow “never misses its target.”<sup>687</sup> Yet as “the red boar of heaven,” Rudra is to be identified with the planet Mars.<sup>688</sup>

As the traditions surrounding Rudra, Skanda, and Murukan attest, the unerring marksman forms a recurring theme in ancient Indian lore. The scholar who has done the most to elucidate its mythical significance is Ananda Coomaraswamy, who notes that a wealth of symbolism pertaining to the *axis mundi* surrounds the unerring marksman (Sanskrit *akkhana-vedhin*). As to the etymology of the phrase, Coomaraswamy writes as follows:

“The etymology of the word *akkhana* has been disputed: as PTS remarks, “We should expect either an etym. bearing on the meaning ‘hitting the center of the target’ [i.e., its ‘eye’; cf. Eng. bull’s eye]...or an etym. like ‘hitting without mishap.’ It is evident, in fact, that the connection of *akkhana* is with Skr. *aks*, to ‘reach’ or ‘penetrate,’ the source of *aksa* and *aksam*, ‘eye’ and *akhana*, ‘butt’ or ‘target’ and in fact ‘bull’s eye.’...*Aksa* is also ‘axis’ and ‘axle-tree’ (distinguished only by accent from *aksa*, ‘eye’), and Benfey was evidently near the mark when he suggested that *aksa* as axle tree was so-called as forming the ‘eye’ in the hub of the wheel which it penetrates...*Akkhana-vedhin* is then ‘one who pierces the eye,’ or ‘one whose arrow penetrates the bull’s eye’: in the present context it would scarcely be too much to say ‘pierces the center of the disc of the Sun’ or ‘hits the solar and macrocosmic bull’s eye.’”<sup>689</sup>

Although such traditions have no obvious point of reference in the current solar system, they make perfect sense from the vantage-point of the Saturn theory. The attested connection between eye, axle, and *axis mundi* stems from the fact that the ancient sun-god had a centrally located “eye” which served as the nave or hub for the spokes of the solar “wheel” as also for the appendant *axis mundi* connecting heaven and earth. As the

<sup>687</sup> S. Kramrisch, *The Presence of Siva* (Princeton, 1981), p. 20.

<sup>688</sup> E. Cochrane, *Martian Metamorphoses* (Ames, 1997), pp. 62-65.

<sup>689</sup> A. Coomaraswamy, “The Symbolism of the Dome,” in R. Lipsey ed., *Coomaraswamy: Selected Papers* (Princeton, 1977), p. 442.

Martian thundergod moved up along the *axis mundi*, it “penetrated” the “eye” of Venus set “in the center of the disc of the sun.”

As Talbott has pointed out, the motif of the unerring marksman is most likely to be explained by reference to Mars’ habit of climbing the *axis mundi* and “penetrating” Venus.<sup>690</sup> Given the astro-physical dynamics that governed the workings of the polar configuration, it was virtually inevitable that Mars would succeed in reaching its “target”—i.e., Venus. Given the sexual symbolism associated with Mars’ penetration of Venus, it follows that the unerring marksman motif is simply a variation upon the widespread theme which viewed the red planet as the paramour of Venus.

### **The Thundergod and the Heart of Heaven**

A widespread tradition locates the thundergod at the center or “heart” of heaven. Thus, the Semitic thunderer Adad was said to roar in “the heart of heaven,” the latter site being that wherein the ancient sun-god both “rose” and “set.”<sup>691</sup> Similar ideas are apparent in the Finnish cult of Ukko, known by the epithet “navel of the sky,” thought to link the thundergod with the polar region.<sup>692</sup>

The Navaho thundergod Nayanezgani is likewise said to have lived in the center of the world.<sup>693</sup> So, too, is the Vedic Parjanya, described as follows in the *Rig Veda*: “Parjanya is the Father of the Mighty Bird: on mountains, in earth’s centre hath he made his home.”<sup>694</sup>

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<sup>690</sup> D. Talbott, “Servant of the Sun God,” *Aeon* 2:1 (1989), p. 44.

<sup>691</sup> A. Jeremias, *Handbuch der altorientalischen Geisteskultur* (Leipzig, 1913), pp. 33, 280.

<sup>692</sup> U. Salo, *op. cit.*, p. 110.

<sup>693</sup> H. Alexander, *op. cit.*, p. 157.

<sup>694</sup> IX:82:3.

The Quiche thundergod Jurakan was called by the epithet *U C'ux Caj*, "Heart of the Sky."<sup>695</sup> Jurakan was the highest deity in the Quiche pantheon and he was credited with being the "source of all energy and life in the universe."<sup>696</sup> Indeed, it was his union with the earth that initiated Creation.<sup>697</sup>

Cognate deities are found elsewhere in Central America and along the South American coast. Tedlock writes as follows regarding the popularity of the thundergod:

"Throughout the East Indies and along the north coast of South America, especially among Carib and Arawakan peoples, there is a god of the hurricane and thunderbolt whose name is cognate with *hurakan*."<sup>698</sup>

The English word hurricane derives from a Taino (Arawakan) name of the thundergod.<sup>699</sup> As Preuss has documented, the language associated with hurricanes and analogous meteorological phenomena involving extreme winds leads to a host of interesting connections, several of which are relevant for an accurate understanding of the ancient thundergod:

"The philology of the terms used for the various types of winds is of great importance in the development of the theme of Jurakan. As can be seen by these definitions, these winds indicate a circular motion and a gyration about a center or eye. For the indigenous mind, these factors hold a religious significance as they are comparable in form to the sacred center from which creative and destructive power emanates...for example, the word *huracan*, a Carib word, means 'a tropical cyclone with winds of 73 miles per hour or greater, but rarely exceeding 150 miles per hour, is usually accompanied by rain, thunder, and lightning...The cyclone, a term that originated from the Greek *kyklos*, meaning 'wheel' or 'circle', and was modified to *kykloma* that signifies 'wheel' or 'coil of a snake', is defined as 'a storm or system of winds that rotates about a center of low

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<sup>695</sup> M. Preuss, *op. cit.*, p. 360.

<sup>696</sup> *Ibid.*, p. 360.

<sup>697</sup> *Ibid.*, pp. 362-363.

<sup>698</sup> D. Tedlock, *Popol Vuh* (New York, 1985), p. 343.

<sup>699</sup> *Ibid.*, p. 343.

atmospheric pressure clockwise in the Southern hemisphere and counterclockwise in the North...The tornado, from Latin: *tornare*, ‘to turn in a lathe’, and also influenced by the Spanish words *tornado*: ‘turned’ or ‘returned’ and *tronada*: ‘thunderstorm’, is a ‘violent destructive whirlwind accompanied by a funnel-shaped cloud...’<sup>700</sup>

Most significant for our discussion here is the intimate relationship thought to pertain between the whirling winds and an “eye” or “wheel-like” form, reminiscent of our earlier discussion of swastika-forms.

Preuss, together with previous scholars, called attention to Juracan’s intimate connection with the pole and *axis mundi*. Somewhat hesitantly, she would identify the god with Ursa Minor: “The one-legged and rotating god in the sky is Ursa Minor whirling around the Pole Star or Ursa Major or both constellations spinning around the world axis.”<sup>701</sup>

Jurakan, like the other thundergods described as living at the “heart of heaven,” is best understood as a personification of the planet Mars which formerly resided at the Pole, the latter deemed to be the sacred center whence emanated the primeval winds and prototypical lightning.<sup>702</sup>

### **The Celestial Ladder and Related Forms**

As Talbott and I have documented, the form of the *axis mundi* evolved during the history of the polar configuration. In addition to presenting a pillar-like structure or *universalis columna*, as in figure nine, a closely related phase saw the *axis mundi* assuming a spiraling form, commonly interpreted as an undulating serpent or rope stretching across the sky.

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<sup>700</sup> M. Preuss, *op. cit.*, p. 359.

<sup>701</sup> *Ibid.*, p. 364.

<sup>702</sup> It is certainly not without interest that Juracan is a recognized cognate of the Aztec Tezcatlipoca, identified by us with the red planet. See E. Cochrane, *op. cit.*, pp. 69-76.



**Figure nine**

The *axis mundi* eventually assumed the form of a ladder-like structure (see figure ten). The resemblance of the solar “ladder” to a spinal column with vertebrae is striking.



**Figure ten**

In an essay on the “Milky Way,” we argued that ancient traditions describing a fiery pillar or ladder-like structure spanning the heavens trace to the *axis mundi* associated with the ancient sun-god.<sup>703</sup> With the disappearance of the World Pillar, the traditions surrounding the prototypical “Milky Way” were transferred to its modern namesake, thereby misleading scholars into believing that this familiar celestial phenomenon could inspire such specific and complex myths as that of the celestial ladder along which transmigrating souls might pass to the celestial otherworld. A systematic analysis of the numerous mythological themes associated with the “Milky Way” will confirm this statement at every turn. Such an analysis will also provide important clues for identifying the thundergod’s former polar location.

It is a striking fact that each of the aforementioned forms of the *axis mundi* is reflected in ancient epithets and traditions surrounding the Milky Way. That the Milky Way was

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<sup>703</sup> E. Cochrane, “The Milky Way,” *Aeon* 4:4 (1996), pp. 39-66.

often compared to a pillar-like form is well documented. Thus, the Iraku of Africa call the Milky Way *mugamba gwa ilunde*: “the beam of the sky.”<sup>704</sup>

Numerous cultures compared the Milky Way to a giant serpent winding across the sky. The natives of the Nyassaland in Africa hold that the celestial band of stars is a great python.<sup>705</sup> The Maya compared the Milky Way to a Fer-de-lance.<sup>706</sup> The Australian aborigines likewise described the Milky Way as serpentine in nature.<sup>707</sup>

Other cultures compared the Milky Way to a ladder spanning heaven. Such ideas are attested in the New World among the Navaho:

“In Acoma sandpaintings the Milky Way appears as a ladder, for it is thought that these stars form a bridge to the heavens. In the Acoma creation myth, the roof beams of the first kiva represent the Milky Way.”<sup>708</sup>

The same idea is attested in ancient and medieval Europe, as Cook has documented with his usual thoroughness.<sup>709</sup>

A very widespread idea compared the Milky Way to the “backbone” of heaven. Thus the Shoshone call the Milky Way the “Backbone of the Sky.”<sup>710</sup> The Chumash call it “Night’s Backbone.”<sup>711</sup> The Tipai of California knew the Milky Way as “Sky-Its-Backbone.”<sup>712</sup> The Tewa speaking Pueblo called the Milky Way “Backbone of the

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<sup>704</sup> S. Lagercrantz, *op. cit.*, p. 68.

<sup>705</sup> *Ibid.*, p. 68.

<sup>706</sup> W. Lamb, “Star Lore in the Yucatec Maya Dictionaries,” in *Archaeoastronomy in Pre-Columbian America* (Lubbock, 1975), p. 237.

<sup>707</sup> C. Mountford, *Art, Myth and Symbolism* (Melbourne, 1956), p. 503.

<sup>708</sup> D. Miller, *op. cit.*, p. 183.

<sup>709</sup> A. Cook, *Zeus*, Vol. 2 (1964), pp. 476ff.

<sup>710</sup> D. Miller, *op. cit.*, p. 132.

<sup>711</sup> *Ibid.*, p. 157.

<sup>712</sup> *Ibid.*, p. 164.

Universe.”<sup>713</sup> The Assiniboin of Minnesota and Winnipeg describe the celestial river as the “Backbone of the Sky.”<sup>714</sup>

The same idea is to be found in Africa. Thus, the San peoples of Northern Namibia call the Milky Way “night’s backbone.”<sup>715</sup>

A remarkable fact, hitherto unnoticed so far I’m aware, is that thundergods everywhere are described as residing or moving in close proximity to the Milky Way, yet another tradition that seems inexplicable by reference to the current solar system but accords perfectly with the historical reconstruction offered here, whereby the thundergod is identified with Mars and intimately associated with the *axis mundi*. Thus, Ovid describes the Milky Way as follows:

“There is a lofty road, plain to see in a clear sky; it has the name ‘milky’, and is famous for its brilliance. This is the way taken by Those Above to the roofs and royal house of the great Thunderer.”<sup>716</sup>

The Sotho of South Africa conceptualize the “Milky Way” as *molala-tladi*, “the roosting place of the *tladi* bird.”<sup>717</sup> Yet *Tladi* himself was the African equivalent of the Thunderbird, the bringer of lightning.<sup>718</sup> Most significant, perhaps, in light of what has been said previously with respect to the Milky Way as a World Pillar, is the Sotho belief that the *molala-tladi* “supports the sky to prevent it from falling on the earth.”<sup>719</sup>

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<sup>713</sup> *Ibid.*, p. 178.

<sup>714</sup> *Ibid.*, p. 237.

<sup>715</sup> B. Warner, “Traditional Astronomical Knowledge in Africa,” in C. Walker ed., *Astronomy Before the Telescope* (London, 1996), p. 311.

<sup>716</sup> *Metamorphoses* I:168-171.

<sup>717</sup> H. von Sicard, “Karanga Stars,” *NADA* 9 (1966), p. 51.

<sup>718</sup> P. Breutz, “Sotho-Tswana Celestial Concepts,” *Ethnological and Linguistic Studies in Honour of N. J. van Warmelo* (Pretoria, 1969), p. 208.

<sup>719</sup> *Ibid.*

The Incan thundergod Illapa, according to the Franciscan friar Cobo, formerly moved along the Milky Way:

“They say that he passed across a very large river in the middle of the sky. They indicated that this river was the white band that we see down here called the Milky Way. Regarding this matter, they made up a great deal of foolishness that would be too detailed to include here.”<sup>720</sup>

Similar traditions surround various mythical heroes identified with the planet Mars, as we have elsewhere documented.<sup>721</sup> The Australian warrior-hero Waijungare, expressly identified with the red planet, is said to live in the Milky Way.<sup>722</sup> The Aztec Tezcatlipoca, also identified with the “Morning Star,” was described as living along the Milky Way.<sup>723</sup>

In Chorti lore, the Milky Way is known as the “Road of Santiago,” after their thundergod. Yet the fact that Santiago also doubles as a god of war and is identified with the “Morning Star” suggests he is to be identified with the planet Mars.<sup>724</sup>

Here it is significant to note that ancient descriptions of the Milky Way dovetail at various points with the behavior ascribed to lightning and thunderbolts. The Pima Indians of New Mexico, for example, share the widespread belief that the lightning moves in zigzag fashion. Yet they also ascribe a zigzagging form to the Milky Way:

“I believe that the ‘crooked (*jujul*) trail going west’ is a metaphor for the Milky Way in its aspect as the trail to the land of the dead. The Piman word *jujul* also means ‘zigzag’; in one of the Rain Songs it is used to describe the behavior of lightning: ‘lightning

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<sup>720</sup> B. Cobo, *Inca Religion and Customs* (Austin, 1990), p. 32.

<sup>721</sup> E. Cochrane, “The Milky Way,” *Aeon* 4:4 (1996), pp. 54-65.

<sup>722</sup> P. A. Clarke, “The Aboriginal Cosmic Landscape of Southern South Australia,” *Records of the South Australian Museum* 29:2 (1997), p. 138.

<sup>723</sup> B. Brundage, *The Fifth Sun* (Austin, 1979), p. 95.

<sup>724</sup> S. Milbrath, *Star Gods of the Maya* (Norman, 1999), pp. 34, 41.



moving very zig-zag, roaring beautifully...Perhaps ‘crooked trail’ is also a metaphor for lightning trail. The shaman’s ladder to the sky is also known as the zigzag ladder.”<sup>725</sup>

If we now turn to the image represented in figure eleven, which depicts the “Milky Way” in Navaho art—the Navaho being close neighbors of the Pima—the celestial reference for the zigzagging form will be readily apparent.



**Figure eleven**

In figure twelve, Adad’s lightning/thunderbolt assumes the very position otherwise associated with the *axis mundi* or World Pillar—as a support for the ancient sun-god. Note also that the lightning/thunderbolt is represented as a zigzagging form, thereby conforming to a universal conception.

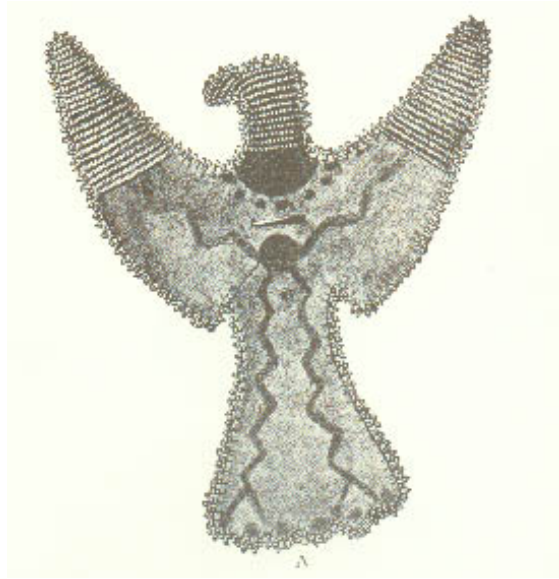


**Figure twelve**

A certain parallel to the Mesopotamian cylinder seal is offered by an American Indian representation of the Thunderbird (see figure thirteen). Here, too, the zigzagging form of

<sup>725</sup> T. Hoskinson, “Saguaro Wine, Ground Figures, and Power Mountains,” in R. Williamson & C. Farrer, *Earth and Sky* (Albuquerque, 1992), p. 136.

the thunderbolt is a point of emphasis. Also interesting is the fact that the lightning is believed to emanate from the “heart” of the Thunderbird, the latter represented as an orb-like object.



**Figure thirteen**

Various other phases in the history of the polar configuration can be reconstructed as well, the *axis mundi* alternately assuming the appearance of a chain of wedges or arrows, often compared to a ladder; a towering pile of serpent-like coils; and a pyramidal or ziggurat-like form. A detailed analysis of these respective forms would be impossible here, but the problem deserves careful study insofar as the forms described in ancient myth and depicted in rock art closely resemble forms seen during certain laboratory experiments performed by Anthony Peratt involving high-energy plasma discharges.<sup>726</sup> Here ancient lore and modern science appear to converge at a level of detail difficult to explain away as mere coincidence. For the first time in history, perhaps, the physical sciences are in a position to illuminate and elucidate recurring mythical themes. Be this as it may, an accurate reconstruction of the various forms assumed by the *axis mundi* is

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<sup>726</sup> See here D. Talbott & W. Thornhill, *Thunderbolts of the Gods* (Portland, 2005).

certain to tell us a great deal about ancient myth in general and the biography of the thundergod in particular.

## Conclusion

To recap our findings in this chapter: the thundergod is inextricably associated with the ancient sun-god, in ancient myth as well as in sacred iconography. The god's lightning is said to emanate from the solar region or from a celestial eye. We are not the first to document this connection between the sun and the thundergod.<sup>727</sup> The Assyriologist Morris Jastrow observed that: "In many mythologies the sun and lightning are regarded as correlated forces."<sup>728</sup> Arthur Cook, similarly, concluded: "The sun-god has much in common with the thunder-god."<sup>729</sup>

The answer as to why this should be the case, although perfectly obvious once the relevant evidence is brought forward, has escaped previous scholars because they were predisposed to seek an explanation by reference to the current skies and familiar meteorological effects. Yet one will never explain the manifold traditions surrounding ancient thundergods by reference to the current skies and commonplace meteorological phenomena. A proper reconstruction of the thundergod's history is much more compelling and cataclysmic from start to finish. For the ancient thundergod was the planet Mars and the prototypical "lightning" an interplanetary discharge of stupendous power and heaven-spanning dimension. The archetypal thundergod formerly resided at the "heart of heaven." There, in plain view and nestled inside the planet Venus, he presided over the sacred fire while kindling his paramour's passion.

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<sup>727</sup> G. Reichel-Dolmatoff, *Amazonian Cosmos* (Chicago, 1971), p. 28 notes that the Desana Indians refer to thunder as the "voice of the Sun."

<sup>728</sup> Quoted in A. Cook, *op. cit.*, pp. 578-579.

<sup>729</sup> *Ibid.*, p. 337.

## 11. The Latin Goddess Venus

“Blessed *Queen of Heaven*...celestial Venus, now adored at sea-girt Paphos, who at the time of the first Creation coupled the sexes in mutual love.”<sup>730</sup>

The first temple to Venus was vowed in 295 BCE, in the aftermath of a bitter and costly campaign against the Samnites. Prior to that occasion the origins of the Latin goddess and her cult are obscure, to say the least.<sup>731</sup>

There would appear to be general agreement among scholars that the goddess Venus is simply the personification of a magical concept originally meaning “charm.” A recent entry in the *Oxford Classical Dictionary* summarized the current consensus as follows:

“The debate over the original nature of this goddess, who does not belong to Rome’s oldest pantheon but is attested fairly early at Lavinium, has been partly resolved (Schilling 1954). It is now accepted that the neuter *venus*, ‘charm’, cannot be separated from the terms *venia*, *venerari*, *venenum* (‘gracefulness, to exercise a persuasive charm’, ‘poison’)...How this neuter was transformed into a feminine, a process attested for the Osco-Umbrian goddess Herentas..., is ill-understood in the absence of evidence.”<sup>732</sup>

It was Robert Schilling who, in his monumental *La Religion Romaine de Vénus*, pointed the way to a new understanding of the Latin goddess. There he analyzed a family of words deemed to be cognate with Venus: *venia*, *venerari*, *venenum*, *venenatum*, and *venerium*. Each of these words, according to Schilling’s interpretation, originally bore the meaning of “to charm,” “to enchant,” “to cast a spell,” etc. Schilling maintained that this vocabulary takes us back to a religion saturated with magic, one which he claimed could properly be called Venusian:

<sup>730</sup> Apuleius, *Golden Ass* (New York, 2009), p. 262.

<sup>731</sup> J. B. Rives et al, “Venus,” in H. Cancik & H. Schneider eds., *Der Neue Pauly* 12:2 (Stuttgart, 2000), col. 17.

<sup>732</sup> J. Scheid, “Venus,” in S. Hornblower & A. Spawforth eds., *The Oxford Classical Dictionary* (Oxford, 1996), p. 1587.

“The neuter *venus* is part of a remarkable semantic series of the same kind as *genus/Genius/generare*, except that here the first term and not the second was divinized, passing from the neuter to the feminine: *Venus/venia/venerari* (sometimes *venerare* in Plautus). To the persuasive charm that the goddess embodies and that the *venerans* (‘he who venerates’) practices upon the gods, there corresponds the symmetric notion of *venia* in the sense of ‘grace’ or ‘favor’—a notion that belongs to the technical vocabulary of the pontiffs (Servius, *Ad Aeneidem* 1.519). This metamorphosis of a neuter noun into a goddess...was very likely furthered by the encounter of this divinity with the Trojan legend. This legend must have facilitated the relation drawn between a Venus embodying charm in its religious meaning and an Aphrodite personifying seduction in the profane sense.”<sup>733</sup>

Schilling’s contribution to the debate over the Latin goddess’s origins is undeniable and in recent years his theory seems to have gained acceptance within the scholarly community. Wagenvoort, for example, has stated: “It is today an almost general opinion that the goddess’ name evolved out of a neuter noun *venus*, *veneris*, indicating some sort of occult force.”<sup>734</sup>

It remains the case, however, that while Schilling may have shed some much-needed light on the etymology behind the term *venus*, the question of the Latin goddess’s origins remains as obscure as ever. Certainly it must be a rare phenomenon in the history of religion for so complex a goddess as the Latin Venus to evolve from an impersonal “force” employed in incantations. Especially elusive is the phenomenological basis behind the magical power to charm or enchant associated with Venus’s name. Was it simply a mystical or spiritual act on the part of the worshipper, as envisaged by Schilling? Or did Venus’s ability to “charm” have a concrete reality or material basis in the natural world? Wagenvoort expressed similar reservations about the conclusiveness

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<sup>733</sup> *La Religion Romaine de Vénus* (Paris, 1954), p. 250.

<sup>734</sup> H. Wagenvoort, “The Origin of the Goddess Venus,” in *Pietas* (Leiden, 1980), p. 168.

of Schilling's thesis: "But if Venus was a 'certain mysterious force', as Schilling says—and I do not disagree with him—whatever can we suppose it to have been?"<sup>735</sup>

It is our opinion that there is a perfectly straightforward explanation for Venus's ability to charm or enchant—namely, her ability to bind or encircle with bonds. In order to demonstrate the point, it is necessary to briefly explore the fundamental nature of magic in ancient cultures.

### **On the Origins of Magic**

It is well known that the act of binding forms an essential component of various forms of magic. On this matter Richard Onians observed:

"In many languages the general notion 'magic' is expressed by the term for 'binding'. It has been noted that it is the commonest process of bewitchment."<sup>736</sup>

The Assyrian word *abâru*, for example, signified "to bind" and to tie a magic knot as well as "spell" or charm.<sup>737</sup> The Greek *katadesmos* properly means "to bind," but it was frequently used with specific reference to the magic associated with knots and bands.<sup>738</sup> The most common term for magic amongst the ancient Norsemen—*seiðr*—is acknowledged to trace to a root meaning "band" or "fetter," with particular reference to the tying of magical knots.<sup>739</sup>

In ancient Egypt a common means of working magic was through the casting of bonds and the tying of knots. J. F. Borghouts, in attempting a definition of magic, notes that "it is a moveable entity, not unlike a rope which may be knot, cast out, caught, and made to

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<sup>735</sup> *Ibid.*, p. 175.

<sup>736</sup> R. Onians, *The Origins of European Thought* (New York, 1973), p. 372.

<sup>737</sup> F. Brown & S. Driver & C. Briggs, *A Hebrew and English Lexikon* (Oxford, 1951), pp. 287-288.

<sup>738</sup> H. Liddell & R. Scott, *A Greek-English Lexicon* (New York, 1872), p. 715.

<sup>739</sup> J. de Vries, *Altnordische etymologisches Wörterbuch* (Leiden, 1977), p. 488.

encircle something.”<sup>740</sup> Notable here is the fact that the Egyptian word *Ḥni* signifies “to enchant,” as well as “to bind” or “encircle.”<sup>741</sup>

The Latin language confirms that similar conceptions were current in ancient Roman times. The word *fascino*, for example, signifying “to bewitch”—whence the English fascinate—is obviously related to *fascia*, a “band” or “bandage.”<sup>742</sup> Especially relevant is the word *vincula*, used by Horatius Flaccus in the sense of “to enchant,” but clearly related to *vinculum*, “band.”<sup>743</sup> It will be noted, moreover, that *vincula* and *vinculum* both appear to be derived from *vincio*, “to bind.”

### Venus as Binder

“And the force that brings their *vincio* ‘binding’ is *Venus* ‘Love.’”<sup>744</sup>

It is tantamount to a truism in ancient religion that all great goddesses are “binders.” The Latin Venus is no exception in this regard: It was through the agency of binding, according to Marcus Varro, that she afflicted mortals and immortals alike with the pangs of love. Indeed, Rome’s greatest scholar speculated that Venus’s ability to “bind” provided the force behind the union of male and female.<sup>745</sup> The legend that makes Venus encircle the poet Tibullus with a love-bond is relevant here.<sup>746</sup> Far from being a mere figure of speech, Venus’s love-bond is best understood as an actual band as Richard Onians has documented.<sup>747</sup> In fact, Europeans continued to speak of Venusian bands and knots many centuries after the eclipse of Roman religion.<sup>748</sup>

<sup>740</sup> J. F. Borghouts, “Magic,” in *LÅ* (Wiesbaden, 1972-1992), col. 1140.

<sup>741</sup> R. Ritner, *The Mechanics of Ancient Egyptian Magical Practice* (Chicago, 1993), p. 43. The related word *Ḥnjt* signifies “encircling” as well as “conjunction.”

<sup>742</sup> *The Classic Latin Dictionary* (Chicago, 1941), p. 218.

<sup>743</sup> *Ibid.*, p. 268.

<sup>744</sup> V 61 from M. Varro, *On the Latin Language* (Cambridge, 1967), p. 59.

<sup>745</sup> *Ibid.*

<sup>746</sup> 1, 8, 5 as cited in R. Onians, *op. cit.*, p. 373. The phrase in question is: “*ipsa Venus magico religatum bracchia nodo perdocuit.*”

<sup>747</sup> *Ibid.*, pp. 370-373.

<sup>748</sup> *The Compact Edition of the Oxford English Dictionary* (Oxford, 1971), pp. 3608-3609.

If the religious cult of Venus is to be understood as saturated by the magical acts of charming, enchanting, and the casting of spells—as per Schilling—it stands to reason that such magic most likely involved the act of binding and casting bonds. If so, it becomes difficult to deny a conceptual or semantic relationship between *venus*, “charm/spell,” and *vincio*, “to bind.” Yet Schilling never discussed the latter word. It is our opinion that this omission represents a significant oversight. By overlooking the Latin verb *vincio* and its Indo-European cognates Schilling not only failed to arrive at a satisfactory explanation of Venus’s much-celebrated ability to charm and enchant, he missed an important clue to deciphering the mythology of great goddesses everywhere.

If the precise origins of the Latin goddess are lost in antiquity, it is generally agreed that her cult owes much to the influence of the Greek Aphrodite and analogous goddesses from the ancient Near East. Whether this influence is to be understood as direct in nature, or as a product of sheer imitation, remains unclear. Georges Dumézil had this to say in *Archaic Roman Religion*:

“It may be imagined that feminine charm with its cunning approach, so powerful over its masculine objects, was designated by the same word [*venus*] as the *captatio* of the god by man. Hypothetical, to be sure, yet this explanation is the most likely that has been set forth so far. It is this *\*uenus* which was personified, and in the feminine gender, which was particularly suited to signify all kinds of forces. Spontaneous evolution? An artifice to obtain for Rome and for the Latin vocabulary an equivalent of the Greek enchantress, Aphrodite or of her Etruscan shadow, Turan? Such an influence is more than likely... Thus, from the very first manifestation of Venus, one must think of the Foreign Goddesses, and ultimately of the Foreign Goddess, who gave rise to her. Actually, before the third century only one of her cults was known at Rome, under the name *Calua*, which concerns feminine charm in one of its aspects which for a long time was undisputed, the hair.”<sup>749</sup>

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<sup>749</sup> G. Dumézil, *Archaic Roman Religion*, Vol. 2 (Baltimore, 1966), p. 422.



Aphrodite herself is the Foreign Goddess *par excellence*, the ancient Greeks themselves tracing her cult to the ancient Near East.<sup>750</sup> This being the case, it stands to reason that additional insight into the origins of the Latin Venus can be achieved by examining the cult of the Sumerian goddess Inanna, with whom both Aphrodite and Venus share much in common.

### Venus in Ancient Mesopotamia

The greatest goddess of the ancient world was the Sumerian Inanna (see chapter four). Like the Latin Venus, Inanna was especially beloved by kings, whom she inspired in battle and led to victory. Indeed, the Sumerian goddess was renowned as a raging warrior-goddess whose capacity for destruction knew no bounds (see chapter five).

In “The Exaltation of Inanna” the goddess is described as a terrifying dragon raining fiery venom from the sky: “Like a dragon [u $\beta$ umgal] you have deposited venom [u $\beta$ <sub>11</sub>] on the land.”<sup>751</sup> Evident here is the conceptualization of Inanna as a venom-spewing dragon, a common image of the raging goddess around the world.<sup>752</sup> It is to be noted that the Sumerian language preserves an explicit semantic link between the concepts “venom/poison” and “to cast a spell or charm”—the word u $\beta$ <sub>11</sub> signifies “venom” as well as “poison, spittle, spell, charm.”<sup>753</sup> The fact that the very same semantic link can be found in the Latin language—*venenum*=venom, poison, charm, to cast a spell—hints at a widespread (and archaic) association of ideas. If so, questions arise as to how this particular datum is to be explained from the standpoint of natural science. Although the semantic link between “venom” and “poison” is readily understood by reference to a serpent’s deadly venom, it is difficult to discern a logical link between a serpent’s venom and the seemingly unrelated concepts of “spell” and “charm.”

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<sup>750</sup> Pausanias, *Book I*:14:7.

<sup>751</sup> Line 9 as quoted in W. Hallo & J. van Dijk, *The Exaltation of Inanna* (New Haven, 1968), p. 15.

<sup>752</sup> See the discussion in E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 105-112, 122-124.

<sup>753</sup> J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 305.

It is the celestial context of Inanna's mythology that points the way to a resolution of this intriguing puzzle. As we have documented (see chapter six), as a venom-spewing dragon Inanna is indissolubly connected to the planet Venus. An early temple-hymn translated by Sjöberg and Bergmann confirms that Inanna—as the planet Venus—was indeed conceptualized as a dragon:

“Your queen (is) Inanna...the great dragon...Through her the firmament is made beautiful in the evening.”<sup>754</sup>

Granted that the planet Venus, as Inanna, was identified as a serpent, how are we to explain the conceptual link between the dragon-goddess's venom and a magical “spell” or “charm”? Given our earlier discussion with regards to the origins of magic, one is naturally led to suspect some sort of relationship between the serpent-like planet and the process of binding or encircling. The fact that Babylonian astronomical texts denote the planet Venus as *kakkab kaššāptu*, “witch-star” is also relevant here.<sup>755</sup> For one reason or another, Venus's appearance or behavior led it to be conceptualized not only as a venom-spewing dragon but also as a witch-like sorceress or caster of spells.<sup>756</sup>

In ancient Egypt, where a venom-spewing serpent-goddess forms a prominent figure in the pantheon, one can find a wealth of evidence which helps to clarify the testimony from ancient Mesopotamia. In light of our discussion thus far, it will be of paramount importance to discover whether the Egyptian uraeus-goddess is associated with the casting of magical spells and, if so, whether a connection to the planet Venus can be established.

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<sup>754</sup> Å. Sjöberg & E. Bergmann, *The Collection of the Sumerian Temple Hymns* (Locust Valley, 1969), p. 36.

<sup>755</sup> F. Gössmann, *Planetarium Babylonicum* (Rome, 1950), p. 62.

<sup>756</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 145-151.

## The Uraeus-Goddess

The Egyptian mother goddess—alternately invoked as Isis, Sakhmet, and Wadjet, among other names—is consistently represented as a fire-spewing uraeus-serpent. As outlined in a previous chapter, the symbolism attached to the uraeus-serpent would appear to find its *raison d'être* in the singular events associated with the crowning of Horus. According to the archaic traditions preserved in the Pyramid Texts, the uraeus-serpent came to adorn the forehead of Horus as the crown of kingship during the decidedly catastrophic events attending Creation. A Pyramid Text devoted to the red crown (*Nt*-crown), wherein the uraeus-serpent is addressed as Ikhet, is instructive here:

“He has come to you, O *Nt*-crown; he has come to you, O Fiery Serpent; he has come to you, O Great One; he has come to you, O Great of Magic, being pure for you and fearing you...He has come to you, O Great of Magic, for he is Horus encircled with the protection of his Eye, O Great of Magic...Ho, Crown great of magic! Ho Fiery Serpent! Grant that the dread of me be like the dread of you; Grant that the fear of me be like the fear of you...If Ikhet the Great has borne you, Ikhet the Serpent has adorned you; If Ikhet the Serpent has borne you, Ikhet the Great has adorned you, Because you are Horus encircled with the protection of his Eye.”<sup>757</sup>

As explicitly stated here in no uncertain terms, the great mother goddess, alternately identified as an “Eye” and “Fiery Serpent,” comes to encircle Horus and, as a result, provides him with the crown of kingship. A detailed analysis of the language in question will confirm that *it is the uraeus-goddess’s act of binding or encircling Horus that constitutes the prototypical act of divine magic*. Thus, in the Spell in question the uraeus-serpent is said to “encircle” (*ḥnj*) Horus. Yet the related word *ḥnj* means “to enchant.”<sup>758</sup> Hence it can be surmised that, in encircling or “binding” Horus, the uraeus-serpent thereby enchanted him.

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<sup>757</sup> PT 194-197.

<sup>758</sup> R. Hannig, *Ägyptisches Wörterbuch I* (Mainz, 2003), p. 1309.

The fact that the uraeus-goddess was regarded as an all-powerful and terrifying celestial agent is essential to elucidating the multifaceted symbolism in question: Thus, her act of encircling Horus as a serpent-like crown was conceptualized as having provided him with an invincible means of magical protection and power. Here, then, is our answer to the question posed earlier: i.e., how to explain the semantic link between the concepts “venom” and “poison” and magical “spell” or “charm.” The original historical connection between the seemingly disparate concepts in question would appear to be explained as follows: It was the venom-spewing uraeus-goddess that came to encircle the god Horus as his crown, thereby “binding” him and providing him with magical protection. Hence it is that the serpentine crown-goddess was known by the epithet “Great of Magic.” The same epithet has been translated as “Great-in-charms”,<sup>759</sup> and was commonly applied to Isis. Isis herself, moreover, was the Egyptian counterpart of the Latin charmer Venus. The fact that Isis was specifically identified with the planet Venus brings the argument full-circle.<sup>760</sup>

The epithet “Great of Magic” was also applied to the Eye of Horus, the latter entity being identifiable with the planet Venus.<sup>761</sup> Thus PT 1795 reads as follows: “Horus has put his eye on your brow in its name of Great-of-Magic.”<sup>762</sup> As “Great of Magic/Charms,” the Venusian Eye-goddess forms a close structural analogue to the Latin goddess Venus, mistress of charms.

### **Inanna/Venus and the Crown of Kingship**

Given the striking parallels between the Egyptian and Mesopotamian accounts of the raging serpentine-goddess, it is relevant to ask whether Inanna/Venus, like the Egyptian Ikhet/Isis, was associated with the crown of kingship. In fact, it is Inanna who provides

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<sup>759</sup> S. Mercer, *The Pyramid Texts in Translation and Commentary, Vol. II* (New York, 1952), p. 93.

<sup>760</sup> Ptolemy, *Tetrabiblos* 2.3.64.

<sup>761</sup> R. Krauss, “The Eye of Horus and the Planet Venus: Astronomical and Mythological References,” in J. Steele & A. Imhausen eds., *Under One Sky* (Münster, 2002), pp. 193-208.

<sup>762</sup> PT 1795.

the crown in an early hymn: “To give the crown, the throne and the royal sceptre is yours, Inana.”<sup>763</sup> “A song of Inana and Dumuzi” makes a similar claim:

“May the lord whom you have chosen in your heart, the king, your beloved husband, enjoy long days in your holy and sweet embrace! Give him a propitious and famous reign, give him a royal throne of kingship on its firm foundation, give him the scepter to guide the Land, and the staff and crook, and give him the righteous headdress and the crown which glorifies his head!”<sup>764</sup>

Yet there is much more that can be said with respect to Inanna’s intimate relationship to the crown of sovereignty.<sup>765</sup> Thus, in a recent analysis of the earliest pictograph used to write Inanna’s name—the so-called MU<sub>3</sub>-sign (see chapter six)—Piotr Steinkeller suggested that it originally represented a head-band or crown. Steinkeller concluded his article as follows:

“As for its specific meaning, we undoubtedly find here a type of band. Since *suh* is compared to ‘crown’ (*men*) and ‘tiara’ (*aga*), and since it may have been decorated with lapis lazuli, it certainly was an object of considerable importance and value, which was worn over the head. A translation ‘diadem’ would thus not be inappropriate...It would seem, therefore, that the archaic symbol of Inanna depicts a scarf or head-band.”<sup>766</sup>

In her magisterial monograph on Inanna’s cult, Françoise Bruschweiler devotes several pages to an analysis of the Sumerian word MU<sub>3</sub>. There she notes that it served as a mark of sovereignty and was typically described as tied on or knotted (Sumerian *kešda*).<sup>767</sup> In the Sumerian hymn “Enki and the World Order,” for example, the MU<sub>3</sub> is mentioned together with the crown of sovereignty: “He raised a holy crown over the upland plain.

<sup>763</sup> J. Black et al, *The Literature of Ancient Sumer* (Oxford, 2004), p. 96.

<sup>764</sup> Lines 34-40 in “A song of Inana and Dumuzi (Dumuzid-Inana D1), *ETCSL*.

<sup>765</sup> See E. Cochrane, *Starf\*cker* (Ames, 2006), pp. 155-158.

<sup>766</sup> P. Steinkeller, “Inanna’s Archaic Symbol,” in J. Braun et al eds., *Written on Clay and Stone* (Warsaw, 1998), p. 95.

<sup>767</sup> F. Bruschweiler, *Inanna la déesse triomphante et vaincue dans la cosmologie sumérienne* (Leuven, 1988), pp. 124-125.

He fastened a lapis-lazuli beard to the high plain, and made it wear a lapis-lazuli headdress [MU<sub>3</sub>=su $\Delta$ <sub>10</sub>].”<sup>768</sup> In the passage in question, the lapis-colored MU<sub>3</sub>=su $\Delta$ <sub>10</sub> is set in direct apposition with the holy crown of sovereignty, thereby implying a direct connection between the tying on of the MU<sub>3</sub>=su $\Delta$ <sub>10</sub> and the crown of kingship.

It is significant to note that Inanna was renowned for tying kingship on the Sumerian king. This idea is attested in a text from the Early Dynastic period, wherein the planet-goddess ties kingship on Lugalkiginnedudu: “When Inanna had tied the lordship with the kingship for Lugalkiginnedudu, she let him exert lordship in Uruk, she let him exert kingship in Ur.”<sup>769</sup>

Egyptian tradition preserves a similar story about the goddess Isis. According to the Pyramid Texts, Isis tied a head-band or fillet on Horus: “Isis the Great, who tied on the fillet in Chemmis when she brought her loin-cloth and burnt incense before her son Horus the young child.”<sup>770</sup> In the passage in question the word for “fillet” is *mf*. The fact that this very word is employed to describe the king’s headband or crown in the Coffin Texts suggests that it originally signified the crown of sovereignty. Witness the following passage:

“Come, that you may see me adorned with a fillet [*mf*] and wearing the royal head-cloth. Joy is given to me by means of it.”<sup>771</sup>



<sup>768</sup> See lines 349-350 from “Enki and the world order,” *ETCSL*. Steinkeller’s translation of the passage in question is virtually identical: “He (Enki) raised a holy crown over the *high* plain, he fastened a lapis beard to the high plain, tied upon it a lapis suh.”

<sup>769</sup> P. Beaulieu, *The Pantheon of Uruk during the Neo-Babylonian Period* (Leiden, 2003), p. 105.

<sup>770</sup> PT 1214. Thus James Allen, *The Ancient Egyptian Pyramid Texts* (Atlanta, 2005), p. 161 translates the passage as “who tied the headband on her son Horus as a young boy.”

<sup>771</sup> CT V:158.

### Figure one

The most common ideogram or determinative for *mf*<sup>772</sup> is depicted in figure one. The resemblance between this ideogram and the Sumerian MU<sub>3</sub>-sign used to denote Inanna/Venus is evident at once (figure two). The fact that both ideograms were used to describe the king's head-band or crown confirms their fundamental affinity and suggests that their spiraling volute-like form traces to a common celestial prototype.



Figure two

In lieu of the possible historical connection between the cults of Sumerian Inanna and Latin Venus, it is relevant to ask whether the Latin goddess was associated with the royal crown? As the testimony of Marcus Varro confirms, on this matter the evidence is unequivocal:

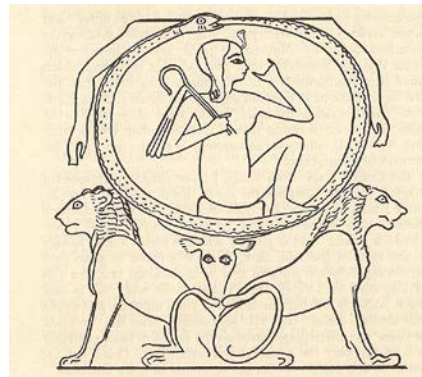
“She is connected with the *corona*, ‘garland’ ...because the garland is a binder of the head and is itself, from *vincitura*, ‘binding,’ said *vieri* ‘to be plaited,’ that is, *vinciri*, to be bound.”<sup>773</sup>

<sup>772</sup> M. Betrò, *Hieroglyphics* (New York, 1996), p. 186.

<sup>773</sup> V 62, as quoted in Varro, *On the Latin Language* (Cambridge, 1967), pp. 59-61.

## The Shen Bond

The Egyptian uraeus-goddess, specifically identified as a raging “Eye,” is said to have bound (*ḥnj*) the crown on Horus at the dawn of time, thereby providing the King of the Gods with an invincible means of magical protection. A brief survey of the philology of *ḥnj* and related words helps to elucidate the celestial context of the symbolism in question. The word *ḥn* signifies “snake” and has specific reference to a celestial serpent-dragon: “The serpent is in the sky...O *ḥn* snake.”<sup>774</sup> According to the Pyramid Texts (681), the *ḥn*-dragon once imprisoned Horus. The *ḥn*-snake is elsewhere described as an Ouroboros, with its tail in its mouth.<sup>775</sup> It is this serpent, apparently, which is described as encircling the king in an otherwise obscure Pyramid Text: “The King lies down in your coil, the King sits in your circle.”<sup>776</sup> Similar ideas prevailed down through the three millennia of Egyptian civilization as indicated by an illustration from the Papyrus of Herytwebkhet, which shows a youthful Horus sitting within an Ouroboros-like enclosure (figure three).



**Figure three**

The image of the great god encircled by a serpentine enclosure recalls the so-called *shen*-bond, a popular Egyptian symbol otherwise known as the ring of sovereignty (see figure

<sup>774</sup> PT 444.

<sup>775</sup> PT 689. See now M. A. van der Sluijs & T. Peratt, “The Ourobóros as an Auroral Phenomenon,” *Journal of Folklore Research* 46:1 (2009), pp. 3-41.

<sup>776</sup> PT 2289.



four).<sup>777</sup> Indeed scholars have often remarked upon the intimate relationship between the two symbols—i.e., the Ouroboros and *shen*-bond—although they have yet to succeed in offering a satisfactory explanation of the natural-scientific basis for the connection. Richard Wilkinson, for example, offered the following observation on the symbolism of the *shen*-bond:

“Being without beginning or end, the circle evokes the concept of eternity through its form, and its solar aspect is symbolized by the sun disk often depicted in the center of the *shen* sign. These ideas were probably the origin of this hieroglyph which is found in words connected with the verbal root *shenu* meaning ‘encircle,’ and which in its later elongated form became the cartouche which surrounded the Egyptian king’s birth and throne names. Perhaps from this particular context the *shen* sign also took on the connotation of protection—as the device which excluded all inimical elements from the royal name. The *shen* may appear with both of these meanings—‘eternity’ and ‘protection’—in Egyptian art...It [the *shen* hieroglyph] is also mirrored in the shape of the *ouroboros*, the serpent which bites its own tail.”<sup>778</sup>



**Figure four**

Egyptologists are agreed, moreover, that the *shen*-bond is intimately associated with archaic ideas of sovereignty and magical protection. Maria Betrò emphasized the bond’s magical function:



“This sign clearly represents a cord knotted at the ends and forming an oval; in the earliest period, however, it was definitely circular. Its meaning is clearly amuletic: it is the ring that magically isolates and protects that which is inside. Rings and ties—both

<sup>777</sup> S. Quirke, *Ancient Egyptian Religion* (London, 1992), p. 62.

<sup>778</sup> R. Wilkinson, *Reading Egyptian Art* (London, 1992), p. 193.

positive and negative—are a recurring image in the practice and ideology of universal magic.”<sup>779</sup>

The symbolism associated with the *shen*-bond is central to a proper understanding of Egyptian ideas of kingship and cosmic geography. Suffice it to note here that there is an intimate relationship between the raging uraeus-goddess and the enclosure known as the *shen*-bond, the latter of which houses the Egyptian pharaoh (as incarnation of the god Horus, the King of the Gods). By encircling Horus as the uraeus-serpent, the raging goddess ensures his magical protection. And as if to emphasize the intimate connection between the encircling (*Ḥn*) uraeus-serpent and the *shen*-bond, in the sacred iconography celebrating the king’s sovereignty the uraeus is depicted handing him the *Ḥnw*-sign. Sally Johnson emphasized this particular role of the uraeus-goddess:

“She presents to the king’s cartouche and Horus name the *wâs*, , scepter and *Ḥnw*, , the signs for ‘dominion’ and ‘infinity of the circuit of the sun’, ‘enclosure’ or cartouche’, thereby legitimizing his crown and sovereignty.”<sup>780</sup>

### Venus and the Lead-Rope of Heaven

In ancient Egypt, as we have seen, the band encircling Horus was alternately conceptualized as a venom-spewing serpent, as a goddess of magic, as a crown, and as an encircling rope or knot (the *shen*-bond). That the band in question was celestial in nature is confirmed by the earliest texts. Over the course of time, however, the celestial band disappeared from view and the symbolism inspired by it became increasingly subject to historicizing and rationalizing speculations. Eventually the celestial band became incorporated into royal ideology and thus it came to symbolize sovereignty itself or the

<sup>779</sup> M. Betrò, *Hieroglyphics* (New York, 1996), p. 195.

<sup>780</sup> S. Johnson, *The Cobra Goddess of Ancient Egypt* (London, 1990), p. 7.

extent of the king's terrestrial domain—all this in accordance with the common theme “as above so below.”<sup>781</sup>

Analogous ideas are attested in ancient Mesopotamia. Figure five shows Inanna/Venus holding the so-called “leadrope of heaven.”<sup>782</sup> The formal resemblance between the leadrope (Akkadian *erretu*) and the Egyptian *shen*-bond is evident at once. A common symbol of the king's terrestrial domain, Inanna's ring constituted a major insignia of kingship as indicated by numerous royal monuments.<sup>783</sup>



**Figure five**

Similar traditions surround the Semitic goddess Ishtar/Venus, of whom it was said: “No one but she can [Hold the lead]rope of heaven.”<sup>784</sup> The goddess herself is made to announce: “I grasp the leadrope of heaven in my hands.”<sup>785</sup>

Literary texts also mention the planet Venus in connection with a celestial band. In the late Babylonian version of the hymn known as the “Exaltation of Ishtar,” the planet-

<sup>781</sup> G. Leick, *A Dictionary of Ancient Near Eastern Mythology* (London, 1991), p. 6 writes: “Astral observation was an intrinsic part of ancient civilizations and the notion of ‘as above so below’ forms the basis of all divination.”

<sup>782</sup> Adapted from an Old Babylonian plaque depicting Inanna/Ishtar in the Underworld. See figure 12 in J. Black et al, *The Literature of Ancient Sumer* (Oxford, 2004), p. 70.

<sup>783</sup> J. Klein, “The Coronation and Consecration of Íulgi in the Ekur (Íulgi G),” in H. Tadmor, M. Cogan & I. Ephraïm (eds.) *Ah, Assyria...* (Jerusalem, 1991), p. 295. J. Black et al, *The Literature of Ancient Sumer* (Oxford, 2004), p. 98.

<sup>784</sup> B. Foster, *Before the Muses* (Bethesda, 1993), p. 502.

<sup>785</sup> *Ibid.*, p. 901.

goddess is described as holding the bond (*riksu*) of the sky. This passage has long troubled commentators. On the cosmic significance of the Ishtar's bond, Andrew George had this to say:

“A clue to the nature of the cosmological ‘bond’ comes from a second passage of the Exaltation of Ištar, in which the word *ùz.sag*, this time translated as *riksu*, denotes something that can be physically held...[Anu speaking to Ishtar] ‘I, Anu, am the lord who directs (the heavens): take hold of their ‘bond’! Holding their ‘bond’ is evidently the means by which Ištar is to control the heavens, now placed at her command. *markasu* is essentially a ‘rope’, particularly that by which a boat is secured to its mooring-post (*tarkullu*), and *riksu*, as also Sum. *dur* (= *turru*), has not only the vague notion of ‘bond’, but also the specific idea of a ‘cord’ that binds things together. It appears that the various parts of the Sumero-Babylonian universe were conceived as being linked or ‘bonded’ by one or more such cords or ropes.”<sup>786</sup>

Absent from George's learned exposition is any discussion of how Ishtar's bond or rope is to be understood by reference to the familiar sky. Why would the planet Venus be associated with a cord-like bond encircling or “binding” the universe? Far from being a “vague notion of ‘bond’,” as per George, Ishtar's lead-rope is best understood as a perfectly visible and tangible celestial structure and, as such, it formed a prominent component of the Sumerian cosmos.

Wolfgang Heimpel, in fact, admitted that the bond of Ishtar/Venus had an astronomical significance. Thus, in a discussion of possible astronomical motifs in ancient Sumerian mythology, Heimpel observed:

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<sup>786</sup> A. George, *Babylonian Topographical Texts* (Leuven, 1992), pp. 261-262.

“Many astral motifs are, in fact, attested: ...Ištar’s Elevation tells us that An married her on the urging of the gods and asked her to hold and rule the ‘tie’ (*riksu*) of the ‘support’ (*pulukku*) of the sky (III 13-36).”<sup>787</sup>

As for how we are to understand this celestial bond or “tie” from an astronomical standpoint, Heimpel remained strangely silent. From our vantage point, however, the answer is perfectly obvious: the rope-like bond of Inanna/Ishtar has reference to the celestial band that formerly spanned the heavens and comprised the enclosure of the gods.<sup>788</sup> In the final analysis, then, the bond/tie of Inanna/Venus forms a precise structural parallel to the Egyptian *shen*-bond—the magical bond formed by the uraeus-serpent as it encircled Horus (Mars). In perfect harmony with this interpretation, the word *riksu* is elsewhere used of the magical spells employed by witches. Witness the following omen: “They (the witches) bind me with (their) plots (*irakkasani rik-si*).”<sup>789</sup>

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<sup>787</sup> W. Heimpel, “Mythologie, A. I,” in E. Ebeling & B. Meissner eds., *Reallexikon der Assyriologie*, Vol. 8 (Berlin, 1993-1997), p. 538.

<sup>788</sup> See the ground-breaking analysis in D. Talbott, *The Saturn Myth* (New York, 1980), pp. 145-171.

<sup>789</sup> CAD, “riksu,” (Chicago, 1965-1989), p. 349. The passage in question is quoted from Maqlu IV 108.

## Conclusion

Modern texts on Roman religion have precious little to say about the origins of the Latin goddess Venus. Recent investigations by Schilling and other scholars have documented that Venus is intimately associated with archaic conceptions of magic—the goddess’s name, in fact, can be translated as “charm” or “spell.” As for how we are to understand the historical origins or phenomenological basis behind Venus’s capacity for casting spells, or how this magical process might be reflected in the ancient cults of her presumed analogues from the ancient Near East—i.e., Aphrodite, Inanna, and Isis, among others—Schilling and his fellow Classicists have nothing substantive to offer.

By pursuing a comparative approach, we have established that the Latin goddess’s propensity for casting magical spells likely has reference to her capacity for “binding.” The same capacity is evident in Venus’s intimate association with the royal crown: “She is connected with the *corona*, ‘garland’ ...because the garland is a binder of the head and is itself, from *vinctura*, ‘binding,’ said *vieri* ‘to be plaited,’ that is, *vinciri*, to be bound.”<sup>790</sup>

As a goddess much involved with magical spells and the “binding” on of the royal crown, the Latin Venus offers a close structural analogue to the Egyptian uraeus-goddess, the latter of whom was invoked as “Great-in-charms” and identified with the crown of kingship. As the Egyptian Pyramid Texts state in no uncertain terms, the uraeus-goddess’s capacity for magic and casting spells traces to her singular role in the “binding” or “encircling” (*Ḥnj*) of Horus *in illo tempore*, whereupon she came to form the crown of kingship. Endlessly celebrated in Egyptian literature and ritual, this dramatic mythological occasion, in our view, has specific reference to cataclysmic events in which the uraeus-serpent—as the planet Venus—appeared to circumscribe Horus/Mars with a celestial band.

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<sup>790</sup> V 62, as quoted in Varro, *On the Latin Language* (Cambridge, 1967), pp. 59-61.

The venom-spewing uraeus-goddess, in turn, forms a remarkable parallel to the venom-spewing Inanna, a planet-goddess who was intimately associated with the crown of sovereignty. And as the Egyptian uraeus-goddess came to be associated with celestial band—the so-called *shen*-bond—so too did Inanna/Venus hold a celestial band in Sumerian lore. Inanna’s tie-like *riksu*, moreover, was specifically likened to a magical spell.

In the Sumerian language the word used to denote the fiery “venom” spewed forth by Inanna/Venus— $u\beta_{11}$ —is explicitly compared to a magical “spell,” thereby paralleling the situation in the Latin language, wherein *venenum* signifies venom, poison, charm, and to cast a spell. This circumstance, coupled with the complementary evidence presented earlier, leads us to the following conclusion: The fiery venom exuded by the dragon-like Inanna, like the fiery venom exuded by the Egyptian uraeus-serpent, is inexplicable apart from the fiery efflux exuded by the comet-like Venus in prehistoric times. In short, the evidence gathered here suggests that the Latin cult of Venus reflects archaic conceptions regarding the planet Venus, albeit in vestigial form.

## 12. The Shout Heard Around the World

“What happened in the brave days of old at the beginning of the present order is of practical importance because it has had a permanent effect on subsequent behaviour and the structure of society and its institutions.”<sup>791</sup>

By all accounts Creation was a noisy and tumultuous affair. As a case in point, consider the widespread tradition whereby Creation was distinguished by a thunderous “shouting” or “roaring.” A classic example of this motif involves the Vedic warrior-hero Indra, who is said to have “shouted” during a valiant attempt to drive away the powers of Darkness and secure the release of the Sun:

“Indra strong to save, who fills mid-air, encompassed round with might, Rushing in rapture; and o’er Satakratu [Indra] came the gladdening shout that urged him on to victory...When thou hadst slain with might the dragon Vrtra, thou, Indra, didst raise the Sun in heaven for all to see.”<sup>792</sup>

Elsewhere it is reported that the “roaring” of Indra and his Korybant-like cohorts attended the initial appearance of light:

“Amid the sages, with the Sun he brightened the Parents [Heaven and Earth]: glorified, he burst the mountain; And, roaring with the holy-thoughted singers, he loosed the bond that held the beams of Morning.”<sup>793</sup>

The Vedic report that a great “shouting” or “roaring” distinguished Creation and the prototypical Dawn underscores the explosive context of the warrior-hero’s dramatic epiphany, wherein Indra “burst” forth into glory by shattering the mountain withholding the light and life-giving waters. Transfixed by the extraordinary celestial events

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<sup>791</sup> E. O. James, *Creation and Cosmology* (Leiden, 1969), p. 3.

<sup>792</sup> *Rig Veda* I:51:2-4.

<sup>793</sup> *Rig Veda* VI:32:2



unfolding overhead, mythmakers everywhere composed analogous vignettes. A famous passage in Job, long considered to have reference to Creation, is a case in point:

“Where were you when I founded Earth? Speak (of it) if you know the story! Who set her measurements, if you know, or who extended the line over her? How were her foundations sunk, or who established the cornerstone, when the Stars of Dawn rejoiced together, and all the divine council shouted joyfully?”<sup>794</sup>

Sumerian accounts likewise emphasize the thunderous sounds attending Creation. Thus, according to an Early Dynastic text known as AO 4153 heaven and earth were “resounding together” during a primeval period of darkness prior to Creation and the initial appearance of the Sun.<sup>795</sup> The word translated as “resound” is *ṣeg<sub>10</sub>-gi<sub>4</sub>*, Akkadian *Ṣagāmu*, “to roar, to thunder,” but also “to shout.”<sup>796</sup>

Complementary testimony comes from the New World. In the *Titulo C’oyoi*, a Quiché document stemming from around 1560, one finds a valuable reminiscence of the mythical Morning Star’s manifestation at Creation:

“Then there at Amak’tan, the name of the mountain, the red place, (was) Amak’tan... when it dawned, they were kneeling, they were occupied...shouting, when the great star came out.”<sup>797</sup>

Common to both the Hebrew and Maya accounts is the memory that a preternatural “shouting” distinguished the extraordinary events recalled as Creation. In each case, moreover, the shouting in question is specifically linked to the concomitant appearance of brilliant stars during the primeval—and presumably prototypical—“dawn.” It is such

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<sup>794</sup> Job 38: 4-7 as translated by H. Page, *The Myth of the Cosmic Rebellion* (Leiden, 1996), p. 167.

<sup>795</sup> Å. Sjöberg, “In the Beginning,” in T. Abusch ed., *Riches Hidden in Secret Places* (Winona Lake, 2002), pp. 231-234.

<sup>796</sup> J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 255.

<sup>797</sup> R. Carmack, *Quichean Civilization* (Berkeley, 1973), p. 288.

mutually corroborative testimony, coming from distant corners of the world, which strongly suggests that archetypal mythological traditions describing Creation commemorate historical events of an extraordinary nature and thus have an experiential or observational basis. Like the mutually corroborating testimony of witnesses in a court of law, such testimony has inestimable value as circumstantial evidence and must be given due consideration in evaluating the merits of the case put before the reader.

### **The Long Night**

Central to many Creation myths is a period of universal darkness.<sup>798</sup> In the sacred traditions of the Skidi Pawnee of North America, it is the Morning Star Mars who is said to have set Creation in motion by overcoming the powers of Darkness. Interestingly, the Darkness in question was attributed to the evil machinations of the planet-goddess Venus. This much is evident from a ritual wherein the following words were ascribed to Morning Star after he had overcome the deadly obstacles placed before him by Venus, thereby preparing the way for the sacred marriage: “I have destroyed the regions once controlled by the mysterious woman who wanted darkness forever.”<sup>799</sup> Such traditions prompted the anthropologist Gene Weltfish to offer the following synopsis of Skidi cosmogony: “In the creation story, fruitfulness and light had come into the world because Morning Star and his realm of light had conquered and mated with Evening Star in her realm of darkness.”<sup>800</sup>

How are we to understand this pre-Creation period of prolonged darkness associated with the planet Venus? A possible clue can be found in a Shipibo tradition of a Long Night prevailing at the Dawn of Time:

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<sup>798</sup> E. Hornung, *Conceptions of God in Ancient Egypt* (Ithaca, 1982), p. 177: “The belief that primeval flood and darkness constitute the state before creation is among the oldest known Egyptian ideas about creation.” See also D. Cardona, “Darkness and the Deep,” *Aeon* 3:3 (1993), pp. 27-32.

<sup>799</sup> R. Linton, “The Sacrifice to the Morning Star by the Skidi Pawnee,” *Field Museum of Natural History Anthropological Leaflets* 6 (1923), p. 13.

<sup>800</sup> G. Weltfish, *The Lost Universe* (New York, 1965), p. 106.

“If the advent [of] the Sun is to be devoutly wished for, so will its unnatural, or day-time, loss be feared. Thus the same term is used for the eclipse of the Sun as for the ‘Long Night’ at the beginning of the world, *Yamëcan ëhua* (literally, ‘Night, Great’)...Because this ‘temporary’ night could presage the return of the ‘long’ night and the cyclical end of the world, the Shipibo make noise to ‘wake *Bari Rios* [Sun] up’ and bring him back.”<sup>801</sup>

Although the Shipibo don’t appear to have preserved a memory of Venus’s connection with the Long Night in question, they do report that Venus once fell from heaven like a giant meteor, a probable reference to that planet’s comet-like phase.<sup>802</sup> This report, in turn, finds an intriguing parallel in ancient Mesopotamian lore, wherein the planet Venus—in the guise of Inanna/Lamashtu—was described as falling from heaven with disheveled hair. Recall the following early hymn to the planet-goddess, quoted in a previous chapter:

“She is a haunt, she is malicious, Offspring of a god, daughter of Anu. For her malevolent will, her base counsel, Anu her father dashed her down from heaven to earth, For her malevolent will, her inflammatory counsel. Her hair is askew, her loincloth is torn away.”<sup>803</sup>

Analogous traditions surround the Indian goddess Kali/Draupadi, whom we have elsewhere identified with the planet Venus.<sup>804</sup> Thus, Kali is reported to have once brought the world near to destruction:

“The dread mother dances naked in the battlefield, Her lolling tongue burns like a red flame of fire, Her dark tresses, fly in the sky, sweeping away sun and stars, Red streams

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<sup>801</sup> P. Roe, “Mythic Substitution and the Stars...” in V. Del Chamberlain et al eds., *Songs From the Sky* (Sussex, 2005), pp. 196-197.

<sup>802</sup> P. Roe, *The Cosmic Zygote* (New Brunswick, 1982), p. 245.

<sup>803</sup> B. Foster, *Before the Muses* (Bethesda, 1993), p. 59.

<sup>804</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 105-112.

of blood run from her cloud-black limbs, And the world trembles and cracks under her tread.”<sup>805</sup>

Significantly, it is Kali’s “dark tresses” which sweep away the sun and stars. Alf Hiltebeitel, with reference to a similar episode in the mythological career of Draupadi, notes that the goddess’s “disheveled hair is thus itself an image of Kalaratri, the Night of Time, the night of the dissolution of the universe.”<sup>806</sup>

The apocalyptic “Night of Time” associated with the wildly disheveled hair of Kali/Draupadi must remind us of the Long Night of Shipibo tradition. Although the Shipibo do not preserve a direct link between the Long Night and the planet-goddess’s disheveled hair, the neighboring Inca still remember the “disheveled hair” formerly presented by Venus. Thus, the Inca name for Venus was *chasca coyllur*, “the star (*coyllur*) with tangled or disheveled hair.”<sup>807</sup> Modern descendants of the Inca, moreover, continue to observe “the day of disheveled hair,” presumably because of its apocalyptic import: “In the Andes, the modern lexicographer Lara has noted a Quechua neologism, *ch’askachau*—literally ‘the day of disheveled hair’—meaning *viernes*, the Spanish word for Venus’s day.”<sup>808</sup>

The disheveled hair of the Incan Venus must recall the disheveled hair ascribed to Kali and Inanna/Lamashtu. Note also that the apocalyptic imagery associated with Kali’s disheveled hair not only recalls the Skidi claim that Venus was responsible for the oppressive darkness *in illo tempore*—the same planet being invoked by them as “Wonderful power whose hair waves”<sup>809</sup>—it dovetails perfectly with the ominous portents associated with comets, the latter being everywhere described as stars with

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<sup>805</sup> D. Kinsley, *The Sword and the Flute* (Berkeley, 1975), p. 87.

<sup>806</sup> A. Hiltebeitel, “Draupadī’s Hair,” in M. Biarreau ed., *Autour de la déesse hindoue* (Paris, 1981), p. 207.

<sup>807</sup> W. Sullivan, *The Secret of the Incas* (New York, 1996), p. 87, citing Diego Holguin’s *Vocabulario de la lengua general de todo el Peru llamada lengua Quichua o del Inca*.

<sup>808</sup> *Ibid.*, p. 88.

<sup>809</sup> J. Murie, “Ceremonies of the Pawnee,” *Smithsonian Contributions to Anthropology* 27 (Cambridge, 1981), p. 142.

disheveled hair and feared for their supposed ability to blot out the light of the Sun and thereby bring about the end of the world. Doubtless it is no coincidence to find that Venus is described as “comet-like” by indigenous cultures around the globe.<sup>810</sup>

### **The Light-Bringer**

Creation, as we have seen, is commonly said to have occurred in the wake of a period of prolonged and oppressive Darkness. In countless traditions a god or hero is said to have somehow dispelled the Darkness, often by vanquishing a great monster. In the Vedic account of Creation, it is the war-god Indra who defeats the dragon imprisoning the Sun. Thus, in a passage quoted earlier, Indra is said to have “shouted” during a valiant attempt to drive away the dragon of darkness and secure the release of the Sun:

“Indra strong to save, who fills mid-air, encompassed round with might, Rushing in rapture; and o’er Satakratu [Indra] came the gladdening shout that urged him on to victory...When thou hadst slain with might the dragon Vrtra, thou, Indra, didst raise the Sun in heaven for all to see.”<sup>811</sup>

Because the war-god and his celestial host were said to have shouted and banged their shields during the dragon combat, it came to be believed that such racket had helped secure the Sun’s reappearance by dispelling or otherwise defeating the powers of Darkness and chaos. In a seemingly purposeful attempt to emulate these dramatic historical events, indigenous peoples around the globe shouted and banged like there would be no tomorrow (literally) in an effort to scare away dragons and other demonic forces deemed responsible for solar eclipses—all this in the belief that eclipses signaled a possible return of the catastrophic Darkness attending Creation. Thus it is that the Shipibo Indians of the Peruvian highlands fear a return of the “Long Night” associated with the terrifying darkness at the beginning of the world every time there is a solar eclipse. Witness the following tradition recorded by Peter Roe, quoted earlier:

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<sup>810</sup> E. Cochrane, *The Many Faces of Venus* (Ames, 2001), pp. 113-151.

<sup>811</sup> *Rig Veda* I:51:2-4.

“If the advent [of] the Sun is to be devoutly wished for, so will its unnatural, or day-time, loss be feared. Thus the same term is used for the eclipse of the Sun as for the ‘Long Night’ at the beginning of the world, *Yamëcan ëhua* (literally, ‘Night, Great’)...Because this ‘temporary’ night could presage the return of the ‘long’ night and the cyclical end of the world, the Shipibo make noise to ‘wake *Bari Rios* [Sun] up’ and bring him back.”<sup>812</sup>

Similar practices are to be found throughout South America. Thus, the anthropologist Métraux documented the following custom amongst the Ge:

“The Ge, along with many other peoples, believe there is a link between eclipses and epidemics...The same belief is found in the Gran Chaco: ‘An eclipse of the sun or the moon foretells disease. When either the sun or the moon becomes angry with men, it covers itself. To have it uncover, it is necessary to beat drums, shout, sing, and make all kinds of noise.’”<sup>813</sup>

Roth documented a similar custom amongst the Cayenne Indians, who “make a terrible noise” upon the occasion of an eclipse.<sup>814</sup> The Arawak likewise regard shouting as being especially effective in dispelling eclipses of the Sun:

“On one occasion, during an eclipse of the sun, the Arawak men among whom he [another anthropologist] happened to be rushed from their houses with loud shouts and yells: they explained that a fight was going on between the Sun and the Moon, and they shouted to frighten and so part the combatants.”<sup>815</sup>

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<sup>812</sup> P. Roe, “Mythic Substitution and the Stars...” in V. Del Chamberlain et al eds., *Songs From the Sky* (Sussex, 2005), pp. 196-197.

<sup>813</sup> A. Métraux, “Myths and Tales of the Matako Indians,” *Ethnological Studies* 9 (1939), p. 97.

<sup>814</sup> W. Roth, “An Inquiry into the Animism and Folk-Lore of Guiana Indians,” *Bureau of American Ethnology* 30 (1915), p. 255.

<sup>815</sup> *Ibid.*, p. 254.

Such ideas were not confined to the southern hemisphere. The Cahuilla Indians of California shouted during eclipses in the belief that such uproarious behavior would save the world from destruction:

“For the Cahuillas, eclipses represented an imbalance in the cosmological system—an offense against the order and the hoped-for predictability of life. Since an eclipse represented a definite imbalance to the universe, with potential death to all, it is not surprising that various forms of ritual activity took place at these times. Everyone shouted during an eclipse in the hope that the noise would drive off the particular beings devouring or hiding the object, thereby helping the Sun or Moon to come back to life. With this great shouting and mayhem, many people hid, especially women and children, so as not to be harmed.”<sup>816</sup>

Modern descendants of the Maya continue to greet eclipses with much fear and commotion. Anthropologists have documented the following customs in Chan Kom, for example:

“The moment of eclipse is one of threatened calamity...So the villagers strive to avert the cataclysm. They seek to frighten away the devouring animal by making as much noise as possible, beating on drums, cans and pails, and firing guns.”<sup>817</sup>

According to Åke Hultkrantz, similar ideas and practices were commonplace across both Americas:

“A solar or lunar eclipse causes great alarm among American Indians. It is a common notion that the heavenly body has been devoured by a monster...By howling and

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<sup>816</sup> L. Bean, “Menil (Moon): Symbolic Representations of a Cahuilla Woman,” in R. Williamson & C. Farrer eds., *Earth and Sky* (Albuquerque, 1992), p. 176.

<sup>817</sup> R. Redfield & A. Rojas, *Chan Kom—A Maya Village* (Chicago, 1964), pp. 206-207.

screaming, beating on drums, boards, or canoes, and shooting arrows up in the air, attempts are made to scare off the beast.”<sup>818</sup>

Northern Europe offers a wealth of testimony attesting to analogous apocalyptic fears. Jacob Grimm summarized the superstitions surrounding eclipses as follows:

“One of the most terrific phenomena to heathens was an *eclipse* of the sun or moon, which they associated with a destruction of all things and the end of the world; they fancied the monster had already got a part of the shining orb between his jaws, and they tried to scare him away by loud cries. This is what Eligius denounces (Superst. A): ‘nullus, si quando *luna obscuratur*, *vociferare* praesumat;’ it is the cry of ‘vince luna!’ that the Indicul. Paganiar means in cap. 21 de defectione lunae, and Burchard (Sup. C, 193b) by his ‘*clamoribus aut auxilio splendorem lunae deficientis restaurare*.’”<sup>819</sup>

With a Germanic flair for thoroughness and erudition, Grimm goes on to document very similar ideas and rituals among cultures around the world. The following custom is found among the Mongols, for example: “To help the lights of heaven in their sad plight, a *tremendous uproar* is made with musical and other instruments, till [the monster of chaos responsible for the eclipse] is scared away.”<sup>820</sup> So, too, in Tripoli, an eclipse of the Sun was greeted with much racket and uproar:

“The plains and heights of Tripoli resounded with the death-dirge...The women *banged copper vessels* together, making such a din that it was heard leagues away.”<sup>821</sup>

The anthropologist Lévi-Strauss devoted much discussion to such practices. Like Grimm, he documented an apparently universal belief-system:

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<sup>818</sup> Å. Hultkrantz, *The Religions of the American Indians* (Berkeley, 1967), p. 48.

<sup>819</sup> J. Grimm, *Teutonic Mythology, Vol. II* (Gloucester, 1976), p. 706.

<sup>820</sup> *Ibid.*, p. 707.

<sup>821</sup> *Ibid.*, p. 707.



“If one were to ask an ethnologist *ex abrupto* in what circumstances unrestricted noise is prescribed by custom, it is very likely that he would immediately quote two instances: the traditional charivari of Europe, and the din with which a considerable number of so-called primitive (and also civilized) societies salute, or used to salute, eclipses of the sun or the moon...As for the din that is made at the time of an eclipse, its ostensible purpose is to frighten away the animal or monster that is about to devour the heavenly body. The custom has been recorded the world over: in China, Burma, India, and Malaysia; in Africa, especially in Dahomey and the neighboring territories; in America, from Canada to Peru by way of Mexico. It was also known among the Greeks and Romans, since Livy and Tacitus refer to it; and it seems to have lasted until fairly recent times...”<sup>822</sup>

Far from being confined to “heathens” and so-called “primitive” societies, virtually identical beliefs will be found amongst the most advanced civilizations and are attested well into modern times. In ancient Mesopotamia, for example, eclipses were thought to herald the death of kings and the end of the world. The following omen is typical in this regard: “If there is an eclipse in month III, the king of the universe will die.”<sup>823</sup> In the so-called substitute king ritual, human sacrifices were offered in an attempt to avert and thus stave off the catastrophic consequences eclipses were believed to effect. Here a poor wretch was solemnly “enthroned” and sacrificed in the Assyrian king’s stead, all in the belief that an eclipse inevitably signaled the death of a king.<sup>824</sup> Apotropaic rituals attending these human sacrifices typically featured much shouting and lamentation:

“We want to draw the reader’s attention to the noise people have to make: wailing priests have to sing lamentations, the common people have to shout a short apotropaic formula,

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<sup>822</sup> C. Lévi-Strauss, *The Raw and the Cooked* (Chicago, 1969), pp. 286-287.

<sup>823</sup> D. Brown, *Mesopotamian Planetary Astronomy-Astrology* (Groningen, 2000), p. 145.

<sup>824</sup> A. K. Grayson, “Assyria,” in J. Boardman et al eds., *The Assyrian and Babylonian Empires and other States of the Near East, from the Eighth to the Sixth Centuries B.C.* (Cambridge, 1991), pp. 137-138.

as do seen craftsmen and priests, in the next ritual...The shouting is apotropaic and making noise is an almost universal mode of behavior when the moon has darkened.”<sup>825</sup>

Human sacrifices were offered in an attempt to avert cosmic disaster among advanced civilizations in the New World as well. The Spanish friar Bernardino de Sahagún described the Aztec’s response to an eclipse of the Sun as follows:

“Then there were a tumult and disorder. All were disquieted, unnerved, frightened. There was weeping. The common folk raised a cry, lifting their voices, making a great din, calling out, shrieking. There was shouting everywhere. People of light complexion were slain [as sacrifices]; captives were killed. All offered their blood...And in all the temples there was the singing of fitting chants; there was an uproar; there were war cries. It was thus said: ‘If the eclipse of the sun is complete, it will be dark forever!’”<sup>826</sup>

The mass hysteria evoked by eclipses amongst the Aztecs is typical of the behavior of indigenous peoples everywhere when confronted by an eclipse. That said, it is difficult to understand why this should be the case. Eclipses of the Sun, after all, *never* cause disaster. Nor, for that matter, do they signal the end of the world. How, then, are we to explain such widespread fears and similarly structured rituals?

It is our opinion that the unique constellation of beliefs surrounding eclipses can only be understood by reference to a historical prototype—specifically, the extraordinary and terrifying events attending Creation, wherein it appeared that the stellar gods were engaged in a prolonged and apocalyptic struggle against the powers of darkness. It was during this “Long Night” that the primeval Sun was imprisoned in darkness and peoples everywhere feared that the world itself would come to an end. Dragons were thought to be responsible for eclipses of the Sun precisely because, on this singular occasion once upon a time, dragon-like forms had stormed the skies and participated in the dramatic

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<sup>825</sup> M. Stol, “The Moon as seen by the Babylonians,” in D. J. Meijer ed., *Natural Phenomena, Their Meaning, Depiction, and Description in the Ancient Near East* (Amsterdam, 1992), pp. 258-259.

<sup>826</sup> B. de Sahagún, *Florentine Codex, Book 7* (Sante Fe, 1953), p. 2.

events recalled as the darkening of the primeval Sun. In accordance with the same associationist rationale, shouting and uproarious noise were thought to be effective in dispelling such monsters because “shouting” and thunderous noise of an extraterrestrial nature accompanied the prototypical dragon combat at the Dawn of Time, wherein it appeared that Indra and the stars of Dawn “shouted” in apparent victory as the pall of celestial Darkness receded, thereby revealing the Sun.

For several millennia after the catastrophic events in question, Earthlings everywhere feared the end of the world during eclipses precisely because, at some visceral level, they still remembered the terrifying events attending Creation, wherein an all-encompassing Darkness gripped the world and blotted out the light of the Sun. In this sense the seemingly irrational and hysterical behavior elicited by eclipses is best interpreted as a learned response to actual catastrophic events *in illo tempore*—as a traumatized response to terrifying sights and sounds of an historical nature. In their anxious and panicked behavior during eclipses human beings thus resemble the traumatized mice in operant conditioning experiments who continue to experience anxiety and anticipate shocks at the sound of a bell long after the stimulus (an electrical shock) that originally elicited their learned response (terror, anxiety) has been removed.

### **Cosmogony and Commemorative Ritual**

In the alternately terrifying and mesmerizing celestial events remembered as Creation, terrestrial mythmakers envisaged a catastrophic dragon combat or theomachy that spelled the end of the previous “World Age” while heralding a new order. Not surprisingly, ancient man interpreted the extraordinary fireworks overhead as the star gods speaking to them—as a shouting or roaring of the respective heavenly spheres. Through their thunderous outbursts and volatile behavior, the celestial powers were viewed as first destroying and then reordering the cosmos. And it was precisely because the gods had ordered the cosmos *in illo tempore*—by Divine commandment or utterance, as it were—that the spectacular events attending Creation came to have a profoundly formative influence on cultural institutions everywhere.

What is true of ancient myth is also true of sacred ritual. Religious rituals, as pointed out by Eliade and confirmed by numerous anthropologists familiar with indigenous cultures, were deemed to derive their fundamental rationale or “charter” from a determined effort to emulate or re-experience the singular events of Creation. Thus, E. O. James wrote as follows with respect to the ideology governing sacred rituals practiced by the Australian Aborigines:

“What they [the primeval gods] did and prescribed must be done now by their descendents because ‘as it was in the beginning, is now and ever shall be, world without end’. So the cosmology lives on in its myth and ritual, and the creative period is an ever-present reality re-enacted in the traditional manner on the great recurrent ceremonial occasions.”<sup>827</sup>

The “Archetype” of all divinely inspired archetypes, needless to say, was Creation itself. And thus it stands to reason that the most prominent phases of Creation were carefully emulated and memorialized in ritual practices. Whatever sights and sounds distinguished the original Creation—be it a blinding “light” or thunderous “shouting” or the sudden appearance of a heaven-spanning pillar—a diligent attempt was made to incorporate these attendant natural phenomena into the religious rituals celebrating the prototypical sunrise. And thus it is that indigenous peoples around the globe greeted the daily “re-appearance” of the sun with boisterous shouts and other raucous behavior. The following account of the ritualistic practices of the Salibas along the Orinoco River is exemplary in this regard: “At Enamouta Village...it would appear to be the usual practice for the Indians to issue simultaneously from their houses at daylight and greet the morn with cries and loud shouts.”<sup>828</sup>

Analogous practices are attested throughout South America. Amongst the Wapisianas of the upper Rio Branco, for example, it was customary for the first to awaken to strike a

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<sup>827</sup> E. O. James, *Creation and Cosmology* (Leiden, 1969), p. 4.

<sup>828</sup> W. Roth, “An Inquiry into the Animism and Folk-Lore of Guiana Indians,” *Bureau of American Ethnology* 30 (1915), p. 254.

drum “until all jump out of their hammocks, and, in the meantime, with a quick step, he will promenade around the maloka with his barbarous music.”<sup>829</sup>

Similar customs prevailed in ancient Europe. Here Jane Harrison observed:

“The custom of greeting the rising sun with dances and the clash of instruments is world-wide...Rites often die down into children’s games, and Pollux tells us that there was a game called ‘Shine out, Sun,’ in which children made a din when a cloud covered the sun.”<sup>830</sup>

If it be granted that there was an historical precedent for the mythological traditions describing a “shouting” and great commotion at Creation, and if we further grant Eliade’s finding that ancient man sought to consecrate and emulate the central events of cosmogony—however such events are to be explained from the standpoint of natural science—we can begin to understand the curious rites whereby indigenous cultures ushered in the daily appearance of the Sun with shouting and the raucous banging of shields. The mundane “day,” for all intents and purposes, was expressly designed in order to symbolically reenact or “re-create” the prototypical “Day” or Dawn associated with Creation. It is the singular historical precedent provided by the dramatic events attending Creation that alone provides the logical rationale and *raison d’être* for the peculiar rites in question. Viewed in the absence of a commonly experienced historical stimulus the rites described by Roth and countless other anthropologists can only seem absurd, incongruous, and utterly irrational.

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<sup>829</sup> *Ibid.*

<sup>830</sup> J. Harrison, *Epilegomena to the Study of Greek Religion and Themis* (New Hyde Park, 1962), pp. 201-202.

### 13. Conclusion

“But if the content of myths only consisted in these objective, transposed elements [i. e., kinship relations in ancient societies] of nature or culture, it would be impossible to understand how and why myths are what they are: an illusory representation of man and the world, an inaccurate explanation of the order of things.”<sup>831</sup>

The Central Dogma of modern astronomy holds that the respective planets have orbited the Sun with near perfect regularity for untold millions of years. Far from being an obscure scientific doctrine of interest to only a few eggheads in the proverbial ivory tower, the Central Dogma—together with its theoretical alter ego uniformitarianism—serves as the philosophical foundation for much of what passes for modern science (the latter doctrine holds that familiar and regularly occurring natural processes govern geological change—on Earth as throughout the solar system). If this belief-system is valid, the present book is worthless as a credible reconstruction of history. Yet if the Central Dogma is invalid, as argued here, virtually everything you read in modern textbooks with regards to astronomy, cosmology, and Earth history becomes obsolete or requires substantial revision.

Truth be told, the verdict is already in: The Central Dogma is dead. Each chapter in the present book provides a wealth of evidence that serves to throw more dirt on its rapidly decomposing corpse. As we have documented, the Earth’s true history is far more interesting than we have been led to believe—stranger, in fact, than the strangest tales of science fiction. Properly reconstructed, it is a history of lost worlds and planetary Gods gone amok. In short, it is a history punctuated by extraordinary catastrophes that convulsed and reordered the immediate solar system while forever changing human behavior and cultural institutions around the globe.

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<sup>831</sup> M. Godelier, “Myth and History,” *New Left Review* 69 (1971), p. 95.

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